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COUNTY BOROUGH OF PRESTON.

REPORT

OF THE

Medical Officer of Health

on the Health of the Borough for the year

1928.

PRESTON
R. SEED & SONS, Printers, 43 Guildhall Street
1929.

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Section B.

SCHOOL MEDICAL SERVICE.

HEALTH COMMITTEE, 1928-29.

The Right Worshipful the Mayor (Mr. Councillor W. Lucas).

Chairman: Mr. Alderman Richard Durham.

Vice-Chairman: Mr. Alderman T. H. C. Derham, m.b., c.m.

Mr. Alderman H. Fazackerley.
Mr. Councillor F. W. Collinson, f.r.c.s.
Mr. Councillor R. C. Handley, j.p.
Mr. Councillor J. P. Peet.
Mr. Councillor J. Herbert.
Mrs. Councillor A. M. Pimblett, j.p.
Mr. Councillor T. C. Rainford.
Mr. Councillor A. P. Adkins.

MATERNITY AND CHILD WELFARE COMMITTEE.

Chairman: Mrs. Councillor A. M. Pimblett, j.p.

The Health Committee, and Councillors Sergeant, Heaps, Ward and Howarth, with the following ladies adopted as Members:—

Mrs. Dunbar, j.p.
Mrs. Marsden, j.p.
Mrs. Todd, j.p.
Mrs. Lucas.
Mrs. White.
Mrs. Lees.
Mrs. Barwick.

TUBERCULOSIS SUB-COMMITTEE.

Six Members of the Health Committee, with the following Members of the Insurance Committee adopted as Members:—

Dr. W. H. Pimblett.
Mr. W. Pemberton.

Staff.

F. A. Sharpe, M.D. (Lond.), B.S., D.P.H.
Medical Officer of Health, School Medical Officer, Port Medical Officer, Tuberculosis Officer.

James Walker, M.B., Ch.B., D.P.H., Vict.
Assistant Medical Officer, Clinical Tuberculosis Officer.

E.E. Critchley, M.B., Ch.B.,
Assistant Medical Officer, Maternity and Child Welfare Officer.

Richard Finch, F.R.C.V.S., D.V.S.M., Veterinary Officer and Officer in charge of Food Inspection arrangements.

W. H. Roberts, F.I.C., Borough Analyst.

Chief Clerk : Mr. W. Sharp.

Matron, Isolation Hospital : Miss J. G. Booth.

Matron, " Chestnuts " Hospital for Consumption : Miss F. Keene.

Health Visitors : M. M. Bottomley, E. A. Cooper, L. Ross, E. Park, D. Lafferty, J. Mortimer, R. Cole.

Tuberculosis Nurses : M. Cole, K. Blakemore.

Sanitary Inspectors : Food and Drug Inspector, E. L. Crossthwaite, Cert. R.S.I. Port and Sanitary Inspector, H. S. Holden, Cert. R.S.I. J. B. Morgan, Cert.R.S.I. Meat Inspector, W. R. White, Cert. R.S.I. F. Potter, Cert. R.S.I. J. B. Cook, Cert. R.S.I. T. Lindsay Cert. R.S.I. H. Harrison, Cert. R.S.I.

Report of the Medical Officer of Health.

To the Chairman and Members of the Health Committee.

The function of the Annual Report is to comment upon the health of the Borough and to describe the agencies by which it is conserved. Year by year the Public Health Service becomes more onerous, not alone by reason of the new responsibilities and duties placed upon Local Authorities by the legislature and the central administration nor by the ever-increasing zeal and wider horizons of the members of the Council, but due in a larger measure to a rapidly-increasing scientific and general knowledge, to a new view of their obligations and an increasing desire for worthier public service. The whole texture of Local Government as I see it is woven through with this new spirit and the Public Health Service is not least so.

In this connection members of the Council will have noticed a change of front in recent years. No longer is the principal point of attack the dwelling and its surroundings. In Preston we have pure water and food, and adequate sewerage and scavenging arrangements. The slum problem is a comparatively minor one, certain to be solved after the satisfaction of the quantitative demand, and our chief pre-occupation here is the maintenance in a reasonable condition of a vast amount of rapidly ageing working class property. While this work occupies, and very rightly so, a large amount of time and energy of the staff yet the more interesting and vital work is that relating to the individual rather than his environment. Our work attempts through the Maternity and Child Welfare Service, the School Medical Service, the Tuberculosis Service, the Isolation Hospital and other departmental divisions of Public Health work, not only to undertake the treatment of or arrange with others for the treatment of disease, but by teaching the elements of hygiene to prevent disease, to treat it in its earliest stages or to so circumvent it that its spread among the people is restricted to the smallest possible extent. Our work on these lines, ever growing in volume and scope, will receive a fresh inspiration and impulse from the Local Government Act of 1929. The intention of Parliament that the care of the poor and their medical treatment shall be placed in the hands of one authority, that there shall be a unification of public medical services, co-ordination of hospital treatment, of medical services for the care of infants, of mental defectives and blind persons, will open out fresh fields of endeavour in which the administrative skill and experience of the members of the Council and their officers will be taxed to the uttermost.

In the body of the report which I have the honour of presenting, will be found sections dealing with the different aspects of the work. In the preparation of them I am indebted to my colleagues. There will be found a comprehensive description of what we are doing and the results of our labours. The report is not so much a compendium of past efforts as it is an earnest of future intentions. There is one point upon which I must again return for the reason that it so vitally affects the quality of our work and which will have an even more injurious effect as the Council takes over, *inter alia*, the Public Health functions of the Poor Law Authority. The efficient administration of the many facets of Public Health demands more accommodation than was considered sufficient before the creation of the School Medical Service, Maternity and Child Welfare and other recently organised measures. The separation of these departments and their housing in indifferent and inadequate buildings tends to perpetuate and crystallize into a permanent separation, what was no doubt thought at the time to be a temporary expedient. It is preventing the amalgamation and co-ordination which will so much improve the volume and quality of the work. The outstanding need at the moment is the creation of a central office in which the administrative work of all branches can be organised and controlled.

It is my privilege, Mr. Chairman and Members of the Committee, to offer you my grateful thanks for your cordial support and encouragement.

I am,

Your obedient Servant,

F. A. SHARPE,

Medical Officer of Health.

Cost of Services.

The following figures as to the cost of the Health Services are summarised from the annual report of the Borough Treasurer for the year ended March 31st, 1928 :—

	Expenditure			Income		
	£	s.	d.	£	s.	d.
Maternity and Child Welfare	6160	17	3	3543	8	1
Meat Inspection	1043	18	5	121	0	0
Public Health	6899	5	4	2005	13	3
Disinfecting	1913	17	6	1184	17	8
Port Sanitary	511	14	7	150	15	6
Elswick Hospital	1141	0	5	17	10	0
Isolation Hospital	8064	0	0	940	16	4
Venereal Diseases	1833	7	2	1474	0	8
Treatment of Tuberculosis	9189	11	11	5538	17	8
Contagious Diseases of Animals	279	10	6	30	10	0
Food and Drugs Act	405	14	4	...		
Medical Inspection and Treatment (Elem. Education)	5159	12	9	86	1	7
Medical Inspection (Higher Education)	260	0	0	...		
TOTAL	42862	10	2	15093	10	9

The figures include the grants from the Ministry of Health with regard to Maternity and Child Welfare, Venereal Diseases, Tuberculosis and Port Sanitation.

The totals for the year ending March 31st, 1927, were as follows :—
Expenditure—£41,626 12s. 2d. Income—£15,022 1s. 11d.

I.—Natural and Social Conditions of the District.

A.—VITAL STATISTICS.

Area in Acres	3,964
Population, estimated middle of 1928 ...	127,100

	1924-25	1925-26	1926-27	1927-28	1928-29
Rateable Value	£605,474	£613,007	£622,256	£633,122	£639,810
Sum represented by a penny rate	£2,276	£2,320	£2,400	£2,400	£2,450
	s. d.	s. d.	s. d.	s. d.	s. d.
Total Rates levied ...	11 10	12 1	12 3	13 0	13 0
Rate for Public Health	0 8⅝	0 9¾	0 9½	0 10⅛	0 10⅛
,, Highways ...	1 4¾	1 5½	1 3⅞	1 7⅛	1 5¾
,, Scavenging ...	0 5⅛	0 5½	0 5⅜	0 5¾	0 5⅛
,, House Refuse...	0 9	0 9⅛	0 10¼	0 9¼	0 7¾
,, Sewerage ...	0 5⅞	0 6½	0 6½	0 6¾	0 7½

	Males	Females	Birth Rate
Births—Legitimate ...	964	859	14.34
Illegitimate ...	49	44	0.73

Deths—Nett ... 1,614. Rate 12.69

Number of Marriages—961. Marriage Rate—7.56.

Number of women dying in, or in consequence of, child birth :—
From Sepsis—3. From other causes—9.

Deaths of infants under one year of age per 1,000 births :—
Legitimate—84. Illegitimate—151. Total—91.

Deaths from Measles at all ages	1
,, Whooping Cough	15
,, Diarrhoea (under two years)	9

The following information is supplied by the Registrar-General :—
County Borough of Preston. Estimated Population—127,100.

1. Causes of Death.

Compared with 1927 there has been an increase in the number of deaths from Scarlet Fever (0—3), Other Tubercular Diseases (21—30), Cancer (163—179), Rheumatic Fever (4—8), Diabetes (16—25), Arterio Sclerosis (76—103), Other Diseases of Respiratory Organs (22—30), Ulcer of Stomach or Duodenum (8—9), Diarrhœa and Enteritis (17—20), Appendicitis and Typhlitis (8—14), Cirrhosis of Liver (5—6), Acute and Chronic Nephritis (109—111), Other Accidents and Diseases of Pregnancy and Parturition (6—9), Congenital Debility and Malformation, Premature Birth (82—89), and a decrease in those caused by Measles (43—1), Whooping Cough (18—15), Diphtheria, Croup (11—9), Influenza (102—40), Encephalitis Lethargica (6—1), Tuberculosis of Respiratory System (99—92), Cerebral Hæmorrhage (77—71), Organic Heart Disease (256—248), Bronchitis (127—94), Pneumonia (176—122), Other Deaths from Violence (55—43), Other defined Diseases (253—222).

There were 11 deaths from Suicide compared with 16 last year and 11 in 1926. In the five years 1914-18 the average was 8.8 and in the succeeding five years 12.6.

There were 1,640 interments at the Cemetery.

The tables in the appendix to this section deal with the Vital Statistics, and compare them with previous years and with other towns. They also illustrate the mortality in the various wards. The figures supplied by the Registrar-General differ slightly in detail from those locally compiled. The various rates given in the report are, with the exception of Table ID, which is supplied by the Registrar-General, calculated from our own figures.

The slight increase in the number of deaths from Cancer justifies the inclusion here of an extract from a paper read by your Medical Officer of Health at a meeting called to form a local committee of the Lancashire, Cheshire and North Wales Council of the British Empire Cancer Campaign.

" In this period, 1900-1928, the death rate from all causes per 1,000 living has been reduced from 24 to 12. While this tremendous reduction in the general rate has taken place, the rate from some causes of death has not improved; in fact, in Heart Disease and Cancer, the rate has definitely increased. Confining our attention to Cancer, we find that the death rate during the interval, has more than doubled, i.e. has risen from 0.58 per thousand in 1900 to 1.31 to-day. Cancer is now the third highest single cause of death, Heart Disease and Pneumonia alone having a higher figure. Cancer now causes one-tenth of the total deaths, and one-seventh of all deaths of persons over 45 years of age.

There are three reasons why this increase has occurred. They are, in order of their importance :—

1. A much higher standard of diagnosis made available by greater skill and the provision of X-ray facilities by the hospitals.

2. The general decrease in the death rate has resulted in a material increase in the expectation of life, which for every child newly born is 12 years more than it was at the beginning of the century. This means that there are living now a much higher proportion of persons of the Cancer-contracting age, i.e. 45 and over, than there were formerly. To put it another way, even if the liability to contract Cancer is what it was, there are now living many more people who are possible victims.

3. There is evidence of a slightly increased liability to Cancer. The future as regards the disease is hopeful. Sir George Newman in speaking of the disease in its commonest manifestation of women says that exhaustive enquiry carried out by the Departmental Committee on Cancer reveals the facts that :

    1. On the average, a period of 6—9 months is allowed to elapse between the first occurrence of symptoms and the patient's attendance at hospital.

    2. Rather less than half of the women who then apply for treatment are at a stage at which effective operation is practicable.

    3. Of those submitted to operation probably only a small proportion are in an early stage of the disease.

    4. It is proved beyond doubt that results at this early stage are, roughly, twice as good as those in patients whose disease though amenable to operation is approaching the borderline of inoperability.

A similar enquiry carried out with regard to Cancer of the lower part of the intestines yielded similar findings.

Work done in recent years with regard to the effect of Radium has yielded astonishing results, even in cases regarded as hopeless from the surgeon's point of view.

The effects of the injection of preparations of lead is also being carefully noted by a clinic in Liverpool under Professor Blair Bell, and while at the present we must regard early operation as the sheet anchor, there is no doubt that advancing scientific enquiry will find new methods. What is required on the part of the public is firstly earlier medical consultation, secondly generous support of institutions at which skilled treatment is provided, and thirdly, the support of measures designed to provide ever-increasing scientific enquiry into the causation and treatment of what is mankind's chiefest bane."

Other deaths from violence numbered 43. They are set out in detail in the appendix, where it is shewn that the largest single cause of accidental death is by motor accidents, followed by falls.

B.—OTHER AGENCIES INFLUENCING THE PUBLIC HEALTH.

1. The Preston Royal Infirmary.

A general description of the Royal Infirmary has appeared in previous annual reports. The following information is abstracted from the annual report of the Preston and County of Lancaster Queen Victoria Royal Infirmary for the year 1928 :—

In-patients.

The number of in-patients treated during the year was 4,312, as against 4,034 in the previous year. The daily average number of beds occupied was 233, compared with 227; the total days maintenance being 85,234, as against 82,605; 577 of the patients were transferred to the Lostock Hall Convalescent Hospital, where the average daily occupation of beds was 37 and the average stay of the patient 23 days.

The Willows Convalescent Hospital for men in Pedder Lane, Ashton-on-Ribble was opened on the 11th October, 1928, and during the period to December 31st, 93 patients were transferred from the Infirmary; the average daily occupation of beds and the average stay was 25 days each.

Out-patients.

Last year's record in the out-patient department has been exceeded—19,293 patients were treated (an increase of 1,426) including 7,273 accident and casualty cases, 2,741 eye, ear, nose and throat, 2,089 surgical, 436 medical, 2,848 X-ray, 747 venereal disease, 1,032 electro-massage, 288 artificial sunlight, and 58 visited at home. The aggregate attendances numbered 112,151, and the prescriptions dispensed 57,677.

Expenditure.

The total expenditure of the Infirmary was £54,128 13s. 0d., of which £30,903 13s. 0d. represented ordinary maintenance, and £23,225 0s. 0d. extensions, improvements and special equipment.

2. Poor Law Relief.

Mr. Thomas H. Bentham, Clerk to the Guardians, has kindly supplied the following information.

During 1928, 309 men, 282 women and 81 children, making a total of 672 persons were received from Preston to the Fulwood Poor Law Institution, as compared with 327 men, 269 women and 30 children, making a total of 626 persons. The total amount of out-door relief in respect of the Borough was £11,123 3s. 10d., as compared with £11,924 10s. 3d. in 1927.

3. National Health Insurance.

Mr. Irvine R. Dearnley, Secretary to the National Insurance Committee, has kindly supplied the following :—

The insured population in the Borough continues to increase. For the year ended 31st December, 1928, the average number of insured persons was 59,890. Of this number 59,278 were members of Approved Societies.

Medical Benefit.—The increase in the issue of the number of prescriptions appears to have been arrested in the year 1928. Ever since the year 1922 up to and including the year 1927 there has been a continuous increase in the number of prescriptions issued. The total number issued during 1928 was 307,583, a decrease of 17,053 on 1927.

The average number of prescriptions issued for each insured person on the doctors' lists was 5.6. This frequency per insured person on the doctors' lists is a decrease of 0.4, but this figure is still 100 per cent. increase on the average for the years 1916 to 1921, when it was 2.8. The frequency per insured person is still the highest of eight similar industrial areas.

The total amount of the drug bill in respect of the prescriptions dispensed by chemists in 1928 was £10,943 12s. 11d. The average cost per insured person (not per prescription as printed in last year's report) was 3s. 11.8d., as against 4s. 4d. in 1927 and 4s. 0½d. in 1926.

Insulin was ordered on 707 occasions in 1928, which is the highest figure in eight similar Lancashire County Borough areas. Serums and Vaccines were ordered on 96 occasions.

Medical List.—Including assistant and the resident doctor of the Medical Association, there were 58 doctors on the Insurance Committee's list on 31st December, 1928. At the same date there were 30 chemists' establishments within the Borough.

Testing of Medicines.—The testing of medicines scheme was continued during the year. Fourteen tests were made at different chemists' establishments and in all the cases the result of an independent analysis was satisfactory.

4. Industrial Situation, April, 1928, to March, 1929.

Mr. T. Hall, Superintendent of the Employment Exchange, has kindly supplied the following :—

In 1927, whilst many of the cotton towns in Lancashire experienced unsettled trade Preston was rather more fortunate chiefly because many of the local employers had developed their trade in the weaving of fancy effects, and to a certain extent artificial silks. These developments stood the town in good stead during 1928, but notwithstanding this the position during 1928 was considerably less satisfactory than the previous year. The numbers of people signing the register throughout the corresponding months under review showed considerable increases. Account should also be taken of the amount of under-employment which obtained in the cotton industry, weavers normally engaged on four looms being employed only on three or two looms. The firms engaged in the spinning of American cotton experienced a shortage of orders and, in addition, unemployment became necessary in that section engaged in the spinning of Egyptian cotton.

During the summer of 1928, the building trade showed a fairly satisfactory position, but the advent of the severe frosty weather in the early months of 1929 seriously affected this industry, and the majority of the local building employees were then unemployed for varying periods. The termination of the housing contracts instituted by the Council affected the position during 1928, and apart from private house building there appears to be very little new building work proceeding locally.

There have been short periods of depression in the rubber trade, but generally speaking employment in this industry has been satisfactory.

The slipper factories did not experience a very good time during the summer of 1928, but some improvement was experienced as the year progressed.

Employment in the electrical, textile, and general sections of the engineering trade remained rather poor. Ironfounding experienced good orders and employment was satisfactory.

The motor industry was satisfactory and, apart from occasional departmental suspensions, regular employment was maintained throughout the year.

Judging from the statistics available regarding the number of dockers in employment at the Docks during 1928, there must have been a considerable falling off in the number of boats arriving. This unsatisfactory state was apparent throughout practically the whole of 1928, and at times there were almost 600 registered men proving unemployment at the Docks. This section proved to be one of the most unsatisfactory features of 1928.

The state of the staple industry of the town has, of course, reflected itself in the various miscellaneous trades representative of the district, such as the hat and cap factories, hosiery works, undergarment factories, millinery, dressmaking and tailoring. In these sections of industry employment has been of a somewhat intermittent character. This feature was particularly apparent in the tailoring industry.

The amounts paid in Unemployment Insurance Benefit are set out below, the records for four years being shown, for comparative purposes :—

Year April—March	Amount paid
1928-29	£189,399
1927-28	£121,771
1926-27	£245,312*
1925-26	£149,771

* Abnormal conditions prevailed.

Unemployment.

1928.	Men.	Women.
April	2742	1584
May	3690	2717
June	2742	1791
July	3152	2190
August	3073	2178
September	3162	1977
October	3792	1853
November	4164	2104
December	4580	2446
1929.		
January	4543	1966
February	4624	2026
March	3725	1573

5. Nursing in the Home. Nature of arrangements in the Area.

The Preston District Nursing Association (affiliated with the Queen's Institute of District Nursing) was founded in 1925. The home is situated at Nos. 3 and 4 Walton's Parade. The staff consists of the Superintendent and eight Nurses. The Association undertakes the nursing of Measles, Whooping Cough, Pneumonia, and other cases of infectious disease which are usually not treated at the Isolation Hospital. This work is paid for by an annual contribution of £100 from the Maternity and Child Welfare Committee and of £100 from the Public Health Committee. In 1928 760 new cases in all were nursed, which necessitated 21,552 visits. Thanks to a large and influential Council and excellent work by District Committees, the organisation is well supported and is increasing its scope of usefulness and service.

APPENDIX

TO

SECTION I.

TABLE IA.

WARD	Census 1921	Estimated Population, June, 1928	Nett Deaths	Rate per 1000 living	Births	Rate per 1000 living	Deaths of Infants	Infant Mortality per 1000 born
St. John's ...	11647	12501	173	13 84	188	15.04	17	90
Avenham	7155	7630	92	12.06	102	13 37	8	78
Christ Church	8474	9092	91	10.01	142	15 62	11	78
Ashton ...	9030	9583	106	11.06	108	11.27	7	65
Maudland ...	9641	10339	110	10.64	144	13.93	14	97
St. Peter's ...	11319	12324	160	12.98	198	16.06	14	71
Moorbrook ...	8736	9399	109	11.60	97	10.32	5	52
Park	14470	15548	203	13.06	219	14 09	18	82
Trinity	9684	10382	163	15.70	175	16.86	26	148
Deepdale ...	10743	12099	142	11.74	198	16.36	17	86
Ribbleton ...	9065	10214	154	15.08	211	20.66	30	142
Fishwick ...	7442	7989	110	13.77	134	16.77	8	60
Unknown ...	...	...	1	...	...	...	...	...
	117406	127100	1614	12.69	1916	15.07	175	91

TABLE Ib.

Year.	No. of Births.	Rate per 1000 Living.	No. of Infant Deaths.	Infant Mortality.	No. of Deaths.	Rate per 1000 Living.
1906	3317	28.49	665	200	2065	17.74
1907	3124	26.68	495	158	2003	17.10
1908	3309	27.56	516	156	1975	16.45
1909	3027	25.54	416	137	1721	14.52
1910	2812	23.58	438	156	1758	14.74
Average	3118	26.37	506	161	1904	16.11
1911	2726	23.25	473	173	1984	16.92
1912	2753	23.40	342	124	1972	16.76
1913	2888	23.95	462	160	2043	16.98
1914	2841	23.97	401	141	1873	15.80
1915	2546	21.48	395	155	2086	18.63
Average	2751	23.21	415	151	1992	17.02
1916	2315	19.36	254	109	1774	16.14
1917	2019	16.96	255	124	1660	15.46
1918	1906	16.07	213	113	1944	18.36
1919	2086	17.45	225	110	1760	14.72
1920	2984	24.43	301	101	1659	13.60
Average	2262	18.85	250	112	1759	15.66
1921	2811	23.44	316	112	1595	13.30
1922	2482	20.53	242	97	1662	13.75
1923	2426	19.11	238	98	1676	13.77
1924	2328	18.91	225	97	1714	13.92
1925	2174	17.69	286	131	1787	14.54
Average	2444	19.94	261	107	1687	13.86
1926	2160	17.39	195	90	1596	12.85
1927	1892	14.88	206	109	1785	14.04
1928	1916	15.07	175	91	1614	12.69

TABLE IC.

Vital Statistics of whole District during 1928 and previous ten years.

YEAR.	Total Population.	BIRTHS. Nett.		CIVILIAN POPULATION.	TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
									Und'r 1 yr. of age		At all Ages.	
		Number.	Rate.		Number.	Rate.	of Non-resid'ts registered in the district	of Residents not regist'd in the district	Number	Rate per 1,000 Nett Births.	Number	Rate.
1918	118,595	1906	16.07	105845	1778	16.79	66	232	213	113	1944	18.36
1919	122,168	2086	17.45	117277	1619	13.55	66	207	225	110	1760	14.72
1920	122,133	2984	24.43	121950	1539	12.57	83	203	301	101	1659	13.60
1921	119,900	2811	23.44		1449	12.08	61	207	316	112	1595	13.30
1922	120,900	2482	20.53		1528	12.64	74	208	242	97	1662	13.75
1923	121,700	2426	19.11		1527	12.54	78	227	238	98	1676	13.77
1924	123,100	2328	18.91		1573	12.78	88	229	225	97	1714	13.92
1925	122,900	2174	17.69		1644	13.38	84	227	286	131	1787	14.54
1926	124,200	2160	17.39		1421	11.44	93	268	195	90	1596	12.85
1927	127,100	1892	14.88		1645	12.93	121	261	206	109	1785	14.04
1928	127,100	1916	15.07		1588	12.49	152	277	175	91	1614	12.69

Total population at all ages	117,406	At Census of 1921.
Number of inhabited houses	27,189	
Average number of persons per house..	4.31	

rea of District in acres (Land and Inland Water)............ 3,964

TABLE Id.

Causes of Death at Different Periods of Life during the Year 1928.

Supplied by the Registrar-General.

Causes of Death.	Sex	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—
ALL CAUSES	M	808	105	19	13	20	25	79	255	171	121
	F	804	69	22	11	20	23	90	205	171	193
1 Enteric Fever	M	...	...	..	...	...	...	...	...	...	...
	F	1	...	...	...	...	...	...	1	...	...
2 Small Pox	M	...	...	...	...	...	...	...	...	...	...
	F	...	...	..	...	...	...	...	...	...	...
3 Measles	M	...	...	...	...	...	...	...	...	...	...
	F	1	1	...	...	...	...	...	...	...	...
4 Scarlet Fever	M	2	...	...	1	1		...	.	...	...
	F	1	...	1	...	...	...	...	...	...	...
5 Whooping Cough	M	7	4	2	1	...	...	...	...	...	...
	F	8	2	2	3	1	...	...	...	...	...
6 Diphtheria	M	7	1	1	3	2	...	...	...	...	...
	F	2	...	...	...	2	...	...	...	...	...
7 Influenza	M	14	...	...	...	2	...	2	5	5	...
	F	27	1	2	...	1	1	5	7	4	6
8 Encephalitis Lethargica	M	1	...	...	...	...	...	1	...	...	...
	F	...	...	...	...	...	...	...	...	...	...
9 Meningococcal meningitis	M	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...
10 Tuberculosis of respiratory system	M	53	1	...	...	2	6	19	21	2	2
	F	39	...	...	1	1	9	21	6	1	...
11 Other tuberculous diseases	M	14	2	3	2	1	1	4	1	...	...
	F	15	...	2	1	5	4	1	1	1	...
12 Cancer, malignant disease	M	91	...	...	...	1	...	7	30	35	18
	F	88	...	...	...	...	1	10	37	23	17
13 Rheumatic Fever	M	4	..	...	...	1	...	2	1	...	...
	F	4	...	...	...	2	...	1	1	...	...
14 Diabetes	M	4	...	...	...	1	...	2	...	...	1
	F	21	...	...	...	...	...	2	7	11	1
15 Cerebral Hæmorrhage, &c.	M	36	...	..	...	...	...	...	11	15	10
	F	39	...	1	...	...	...	2	11	12	13
16 Heart Disease	M	121	...	...	...	2	3	6	50	38	22
	F	127	...	...	...	1	...	12	44	38	32
17 Arterio-sclerosis	M	50	...	...	...	...	...	...	20	17	13
	F	53	...	...	...	..	...	...	7	24	22
18 Bronchitis	M	44	4	...	...	...	2	2	14	8	14
	F	47	7	...	...	...	...	...	9	9	22
19 Pneumonia (all forms)	M	63	16	7	...	...	3	12	17	3	5
	F	54	5	8	1	1	2	5	12	14	6
20 Other respiratory diseases	M	16	...	1	...	...	...	1	9	1	4
	F	13	2	...	...	1	...	1	6	2	1
21 Ulcer of Stomach or Duodenum	M	6	...	...	...	...	...	1	4	1	...
	F	3	...	...	...	..	...	1	1	1	...
22 Diarrhœa, &c.	M	13	9	...	...	1	...	2	1	...	...
	F	8	2	...	...	1	...	1	1	...	3
23 Appendicitis and Typhlitis	M	7	...	...	1	...	1	...	4	1	...
	F	7	...	1	1	...	2	...	...	3	...
24 Cirrhosis of Liver	M	4	...	...	...	..	...	...	3	1	...
	F	2	...	...	...	...	...	...	1	...	1
25 Acute and Chronic Nephritis	M	46	...	...	...	2	...	2	8	20	14
	F	62	...	1	...	...	1	4	10	13	33
26 Puerperal Sepsis	M	...	...	...	...	...	...	...	...	...	...
	F	3	...	...	...	...	1	2	...	...	...
27 Other accidents and diseases of pregnancy and parturition	M	...	...	...	...	...	...	...	...	...	...
	F	9	...	...	...	..	..	9	...	...	...
28 Congenital Debility and Malformation, Premature Birth	M	50	50	...	...	...	...	...	...	...	...
	F	87	36	...	...	1	...	...	...	...	...
29 Suicide	M	6	...	...	...	...	1	4	1	...	...
	F	5	...	...	...	...	...	...	5	...	...
30 Other deaths from violence	M	22	...	...	1	1	6	4	10	...	...
	F	21	1	2	...	2	1	...	9	1	5
31 Other defined diseases	M	126	18	5	4	3	2	8	44	24	18
	F	105	12	1	4	1	1	13	28	14	31
32 Causes ill-defined or unknown	M	1	...	...	...	...	...	...	1	...	...
	F	2	...	1	...	...	...	...	1	...	...

TABLE Ie.

Number and Causes of Death in each Ward for the Year.

Cause of Death	St. John's Ward	Avenham Ward	Christ Church Ward	Ashton Ward	Maudland Ward	St. Peter's Ward	Moorbrook Ward	Park Ward	Trinity Ward	Deepdale Ward	Ribbleton Ward	Fishwick Ward	Unknown	Totals
Enteric Fever	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Scarlet Fever	...	...	...	...	...	1	...	1	...	1	...	...	...	3
Whooping Cough	3	...	2	...	1	2	1	3	1	...	1	1	...	15
Diphtheria, Croup	1	...	...	2	1	...	...	2	...	...	2	1	...	9
Influenza	2	3	2	3	2	2	6	7	3	1	5	4	...	40
Encephalitis Lethargica ...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Meningococcal Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis of Respiratory System	13	2	5	4	8	6	5	14	12	10	7	6	...	92
Other Tuberculosis Diseases ...	3	1	2	2	1	2	1	1	2	4	5	5	1	30
Cancer, Malignant Disease ...	17	10	12	9	18	19	15	27	17	13	12	10	...	179
Rheumatic Fever	1	...	1	...	...	1	...	1	...	1	2	1	...	8
Diabetes	2	...	3	1	3	4	1	3	...	2	3	3	...	25
Cerebral Haemorrhage... ...	6	8	5	8	5	7	7	9	4	6	3	3	...	71
Organic Heart Disease ...	31	11	12	19	14	34	19	36	24	16	16	16	...	248
Arterio Sclerosis	10	6	4	7	6	9	9	12	7	13	9	11	...	103
Bronchitis	13	6	8	4	6	12	3	7	10	8	9	8	...	94
Pneumonia, all forms	12	10	5	3	9	18	7	21	11	7	14	5	...	122
Other Diseases of Respiratory Organs	5	2	...	2	1	4	1	3	4	2	3	3	...	30
Ulcer of Stomach or Duodenum	1	...	1	...	...	1	1	...	1	1	2	1	...	9
Diarrhoea and Enteritis ...	...	2	1	1	1	1	1	3	5	1	2	2	...	20
Appendicitis and Typhlitis ...	1	1	...	1	1	1	1	2	...	3	1	2	...	14
Cirrhosis of Liver	...	...	...	...	2	1	...	2	...	1	...	...	...	6
Acute and Chronic Nephritis ...	13	8	4	9	8	14	10	6	16	10	7	6	...	111
Puerperal Sepsis	...	...	...	...	...	...	...	...	1	1	1	...	...	3
Other Accidents and Diseases of Pregnancy and Parturition	1	1	1	...	...	...	2	...	...	1	2	1	...	9
Congenital Debility and Malformation. Premature Birth	6	1	6	4	8	5	5	12	13	10	16	3	...	89
Suicide	...	...	...	3	2	1	2	...	1	...	1	1	...	11
Other Deaths from Violence ...	2	3	3	5	2	2	1	6	5	5	8	1	...	43
Other defined Diseases ...	29	16	14	19	10	11	10	25	24	25	23	16	...	222
Diseases ill-defined or unknown	...	1	...	...	1	2	1	...	...	...	...	...	...	5
Totals	173	92	91	106	110	160	109	203	163	142	154	110	1	1614

TABLE IF.

Birth Rate, Death Rate and Analysis of Mortality during the Year 1928.

(Provisional figures. The rates for England and Wales have been calculated on a population estimated to the middle of 1928, but those for the towns have been calculated on populations estimated to the middle of 1927. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns.)

This Table, with the exception of the line relating to the Borough, has been supplied by the Registrar-General :—

—	BIRTH-RATE PER 1000 TOTAL POPULATION	ANNUAL DEATH RATE PER 1,000 POPULATION									RATE PER 1,000 BIRTHS		PERCENTAGE OF TOTAL DEATHS			
		All Causes	Enteric Fever	Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Diarrhoea and Enteritis (under 2 years)	Total Deaths under One Year	Certified Causes of Death	Inquest Cases	Certified by Coroner after P.M. No Inquest.	Uncertified Causes of Death
England and Wales... ...	16·7	11·7	0·01	0·00	0·11	0·01	0·07	0·06	0·19	0·53	7·0	65	90·9	6·7	1·4	1·0
107 County Boroughs & Great Towns, including London.	16·9	11·6	0·01	0·00	0·15	0·02	0·09	0·09	0·17	0·48	9·6	70	91·0	6·5	1·9	0·6
*156 Smaller Towns (1921 Adjusted Popul'ns. 20,000-50,000)	16·6	10·6	0·01	0·00	0·08	0·01	0·06	0·08	0·21	0·41	4·8	60	92·6	5·7	0·5	1·2
London	15·9	11·6	0·01	0 00	0·30	0·02	0·09	0·09	0·13	0·55	10·2	67	88·7	7·6	3·7	0·0
County Borough of Preston...	**15·07**	**12·69**	**0·01**	**0·00**	**0·01**	**0·02**	**0·12**	**0·07**	**0·31**	**0·42**	**0·09**	**91**	**91·49**	**4·85**	**0·50**	**3·16**

* By the union of Morecambe M.B. and Heysham U.D. on the 1st October, 1928, the number of Smaller Towns is increased to 156.

TABLE Ig.

Abstract from the Registrar-General's Report.

Population, Births, Deaths, and Infant Mortality for the 52 weeks ended December 29th, 1928.

NAME OF TOWN.	Adjusted Population Mid., 1926.	Birth Rate.	Recorded Death Rate.	Measles.	Scarlet Fever.	Wh'p-ing Cough.	Diphtheria.	Influenza.	Diarrhœa & Enteritis under 2 years	Deaths under 1 year to 1,000 Births.
Stockport	125,200	14.6	12.4	0.10	0.02	0.11	0.02	0.34	6.6	76
Chester	42,030	16.6	8.7	0.05	...	0.02	0.02	0.10	4.3	46
Birkenhead	162,000	18.1	11.3	0.10	0.01	0.12	0.04	0.21	14.0	78
Wallasey	99,730	14.4	10.1	0.03	0.01	0.05	0.09	0.17	5.0	36
Liverpool	872,900	21.9	12.8	0.19	0.02	0.31	0.11	0.12	16.6	92
Bootle	84,970	20.5	10.4	0.06	0.01	0.38	0.08	0.22	6.3	87
St. Helens	113,100	21.3	11.4	0.14	0.04	0.19	0.08	0.35	8.3	97
Southport	78,670	11.6	12.7	0.03	...	0.11	0.01	0.41	3.3	75
Wigan	88,690	18.6	12.1	...	...	0.06	0.01	0.24	8.5	92
Warrington	78,680	19.7	11.1	0.37	0.01	0.04	0.06	0.32	5.1	64
Bolton	178,300	14.7	12.7	0.08	0.01	0.04	0.10	0.32	6.1	64
Bury	56,770	13.1	13.2	0.05	0.04	...	0.12	0.19	4.0	89
Manchester	751,900	17.2	12.9	0.16	0.02	0.12	0.12	0.23	16.3	90
Salford	247,600	16.8	12.3	0.17	0.00	0.15	0.03	0.24	19.9	96
Asthon-under-Lyne	50,850	14.7	13.1	0.10	0.02	0.02	0.06	0.24	10.7	67
Oldham	141,400	14.5	14.0	0.06	0.01	0.04	0.25	0.41	8.3	83
Rochdale	91,060	13.7	14.0	0.02	0.03	0.02	0.09	0.38	8.8	78
Burnley	99,270	15.1	13.1	0.08	0.01	0.02	0.07	0.25	7.3	79
Blackburn	124,500	13.9	12.0	0.01	...	0.05	0.11	0.43	5.8	78
Preston	**127,100**	**15.1**	**12.4**	**0.01**	**0.02**	**0.11**	**0.07**	**0.31**	**1.6**	**86**
Blackpool	93,160	11.9	13.1	0.06	0.01	0.02	0.04	0.26	6.3	72
Barrow-in-Furness.	69,750	16.3	10.8	0.04	...	0.01	0.03	0.19	4.4	61

TABLE Ih.

Deaths from Violence, excluding Suicide.

	Total	0–1	1–2	2–5	5–15	15–25	25–45	45–65	65–75	75 & over
Scalds	3	...	2	...	...	...	...	1	...	...
Burns	2	...	...	...	...	1	...	1	...	...
Drowning	2	...	...	...	...	1	...	1	...	...
Motor Accident ...	14	...	...	1	2	3	2	5	...	1
Works	3	...	...	...	...	2	1	...	...	...
Falls	10	...	...	...	1	...	1	6	...	2
Asphyxia whilst sleeping	1	1	...	...	...	...	...	...	...	...
Murder	2	...	...	...	...	...	...	2	...	...
Railway Accident ...	1	...	...	...	...	...	...	1	...	...
Exertion	2	...	...	...	...	...	...	1	1	...
Falling Tree	1	...	...	...	...	...	1	...	...	...
Playing	1	...	...	...	1	...	...	...	...	...
Judicial Hanging ...	1	...	...	...	...	...	...	1	...	...
Totals	43	1	2	1	4	7	5	19	1	3

II.—Sanitary Circumstances of the District.

A.—WATER SUPPLY.

The water supply was described in the report for 1920. The work authorised under the Preston Corporation Act of 1921 is now in hand. The new intakes in the Langden Valley and in the Hareden Valley are completed.

The construction of the new reservoir at Longridge is progressing satisfactorily.

The following report was made by the Borough Analyst upon a sample of the town's water submitted on February 5th, 1929:—

	Parts per 100,000.
Total solid matter in solution	6.80
Oxygen required to oxidize in 15″	0.050
Oxygen required to oxidize in 3 hours	0.098
Ammonia	0.001
Ammonia from Organic Matter by distillation with alkaline permanganate	0.003
Nitrogen as Nitrates	None
Nitrogen as Nitrites	None
Combined Chlorine	1.05
Total Hardness	3.20

The sample was very faintly turbid, slightly yellow and odourless. It contained a trace of suspended matter which consisted mainly of vegetable débris and hydrated oxide of iron with diatoms, infusoria and a few insect remains.

The sample is a good soft upland surface water, well suited for drinking and all domestic purposes.

Reaction to litmus—alkaline.

(Signed) W. H. ROBERTS, M.Sc., F.I.C.,
Borough Analyst.

B.—CLOSET ACCOMMODATION.

There are approximately 30,133 fresh water closets, 471 waste water closets, 12 trough closets (exclusive of those in use at schools) and 27 privy middens, all of which latter are situated on farms and cottages in the rural parts of Ashton, Deepdale, Ribbleton and Fishwick Wards, and are not within reach of a sewer.

The sanitary conveniences in use at factories and workshops and schools are not included in the above.

C.—SCAVENGING.

The system in force was described in the report for 1920. The work has been carried out satisfactorily. The crude refuse is tipped into a bunker and carried by means of a chain bucket to a mechanically operated revolving screen. The apertures in the first part of this screen are $\frac{7}{8}''$ diameter, and result in the removal of dust. This dust falls into a hopper, and is conveyed by means of a chain bucket to a loading hopper. The second part of the screen has $1\frac{1}{2}''$ diameter apertures, through which fall the cinders and unburnt pieces of coal. These are similarly conveyed to the second loading hopper. The remainder of the débris is carried by an endless belt to a bunker feeding the particular group of furnaces in use, on the way to which it is hand sorted, the tins, rags and paper so removed being subjected to baling processes and made marketable.

The machinery for dealing with condemned meat, slaughterhouse refuse and fish offal consists of a bone crusher, three steam jacketed digesters, a hydro fat extractor and a pulveriser. All fumes from the cookers are led to the chimney flue. This installation has proved of great value, in that it converts waste products which were difficult to destroy into a dry powder of high food value for animals.

D.—WORK OF THE DISTRICT SANITARY INSPECTORS.

1. Dwelling Houses.

5,789 Inspections and 6,201 re-inspections were made by the district sanitary inspectors, the detail is given in Table IIA at the end of this section.

These inspections and re-inspections involved the sending of 1,498 letters with regard to the common defects, i.e. yard flagging, cleansing and lime-washing, and provision of dustbins. 292 Informal notices were served in connection with the surveys under the Housing Regulations, 1910, and the Housing Act, 1925. There were also 62 statutory notices under the Public Health Acts served by the authority of the Council. Legal action to enforce the requirements of the Council was taken in the following instances :—

Public Health Act, 1875, Sec. 94.—Nuisances in five houses; cases withdrawn on completion of work.

Public Health Act, 1875, Sec. 46.—Limewashing of five houses; cases withdrawn on completion of work.

The results of the work are shewn in Table IIB, 3,048 houses in all have been dealt with. The improvements, repairs and alterations are multifarious and cover practically every possible kind of defect. The work done in connection with the Public Health Acts generally relating to one and only occasionally to more than one defect. That in connection with the Housing and Town Planning Act, relating as it did to the poorer class of property, dealt with a variety of defects in each individual house which were discovered during a thorough sanitary survey.

2. Drains.

2,821 Inspections and 4,610 re-inspections, which are detailed in Table IIA, were made during the year. The work done is detailed in Table IIB.

3. Schools.

Thirty visits were made by the Sanitary Inspectors. In 13 instances the drains and water closets were repaired, whilst in one, the floors and walls were repaired and in one the ventilation was improved. One rat was caught.

4. Factories and Workshops.

Tables IIc—IIf deal with the premises registered, the number of inspections and the results of such inspections. Of the 64 defects originally found, 64 were remedied. There is very little out-working done in the Borough, the premises upon which it is carried out have been inspected frequently, and found satisfactory.

5. Offensive Trades.

The following offensive trades are established in the Borough:—

Soap Boiler—3; Fat and Tallow Melter—5; Knackers Yard—1;
Gut Scraper—1; Tripe Boiler—5; Fish Friers—169.

All these premises are subject to frequent inspection. 527 Visits were paid during the year and five nuisances were remedied. The conditions are as satisfactory as the nature of the trade will allow.

6. Pig Keeping.

There are 16 Pig Keepers in the Borough, of whom nine are farmers. The total number of pigs kept is 254.

The sanitary conditions, especially those relating to the distance from inhabited dwellings, drainage, conditions of floors, and buildings, and means of temporary storage of manure are satisfactory. 104 Visits were made to the premises.

7. Common Lodging Houses.

There are 36 common lodging houses on the register. The accommodation consists of 885 beds in 246 rooms. The average number of lodgers per night is 649. The premises are visited regularly (2,091 visits have been paid) by the Sanitary Inspectors. Many of these houses are ancient and are difficult to maintain in a sanitary condition. The accommodation for women has been the subject of a recent report to the Health Committee, the main defects reported on being lack of accommodation for personal ablutions, for storage of personal effects, adequate screening of the rooms occupied by women and means of escape from fire.

The bye-laws made by the local authority under Section 80 of the Public Health Act, 1875, for:—

1. Fixing number of lodgers and separation of sexes;
2. Promoting cleanliness and ventilation in such houses;
3. Giving of notice and taking precautions in cases of infectious disease, and
4. The general well ordering of such houses;

have been carried out.

8. Houses Let in Lodgings.

A report was submitted to the Health Committee in February, 1928, as a consequence of which the model bye-laws were adopted and submitted to the Ministry of Health for approval.

The report was included in my annual report in 1927.

A tabular statement shewing the situation of these houses and accommodation provided therein appears in the appendix to this section.

9. The Rag Flock Act.

No samples have been taken. No rag flocks are sold in the Borough.

10. Rats and Mice Destruction Act.

The advice of the Department was sought by proprietors of infested premises on numerous occasions. Buildings were inspected as follows :—

Factories	7
Food Preparing Premises	17
Groups of Dwellinghouses	63

In 82 instances the cause of the invasion was found to be defective drains. In each case the possibility of further infestation was removed by the execution of the necessary repairs. In these operations over 388 rats were destroyed.

During the year special attention was paid to the rat infestation at the knacker's yard.

The necessary inspections and supervision of the work entailed called for 717 visits of the staff.

11. Stable Premises and Garages

Have been the subject of 256 visits. As a result, one new stable has been erected, five stables have been abolished, 51 have been cleansed, three new drains installed, covers to middens in 12 instances, seven old middens abolished, pails have been substituted, and arrangements made with the Cleansing Department to remove periodically, 21 offensive accumulations abolished, and four structural repairs carried out.

12. Theatres and Cinemas.

In 17 theatres and cinemas, of which two are used for theatrical performances, and the remainder as cinemas, the seating is as follows :—

Cinemas	15	Total seats ...	15,061
Theatres	2	Total seats ...	4,452
Boxing Booths ...	1	Total seats ...	2,000
Dancing Halls ...	18		
Billiard Halls ...	9		

In accordance with the regulations issued by the Ministry, Circular 120, 25/8/20, each place of entertainment has been visited and a certificate issued to the proprietor for presentation to the Licensing Authority, who require such certificate before they can grant the licence. This certificate must state that the premises are satisfactory in sanitary and other respects. Special attention

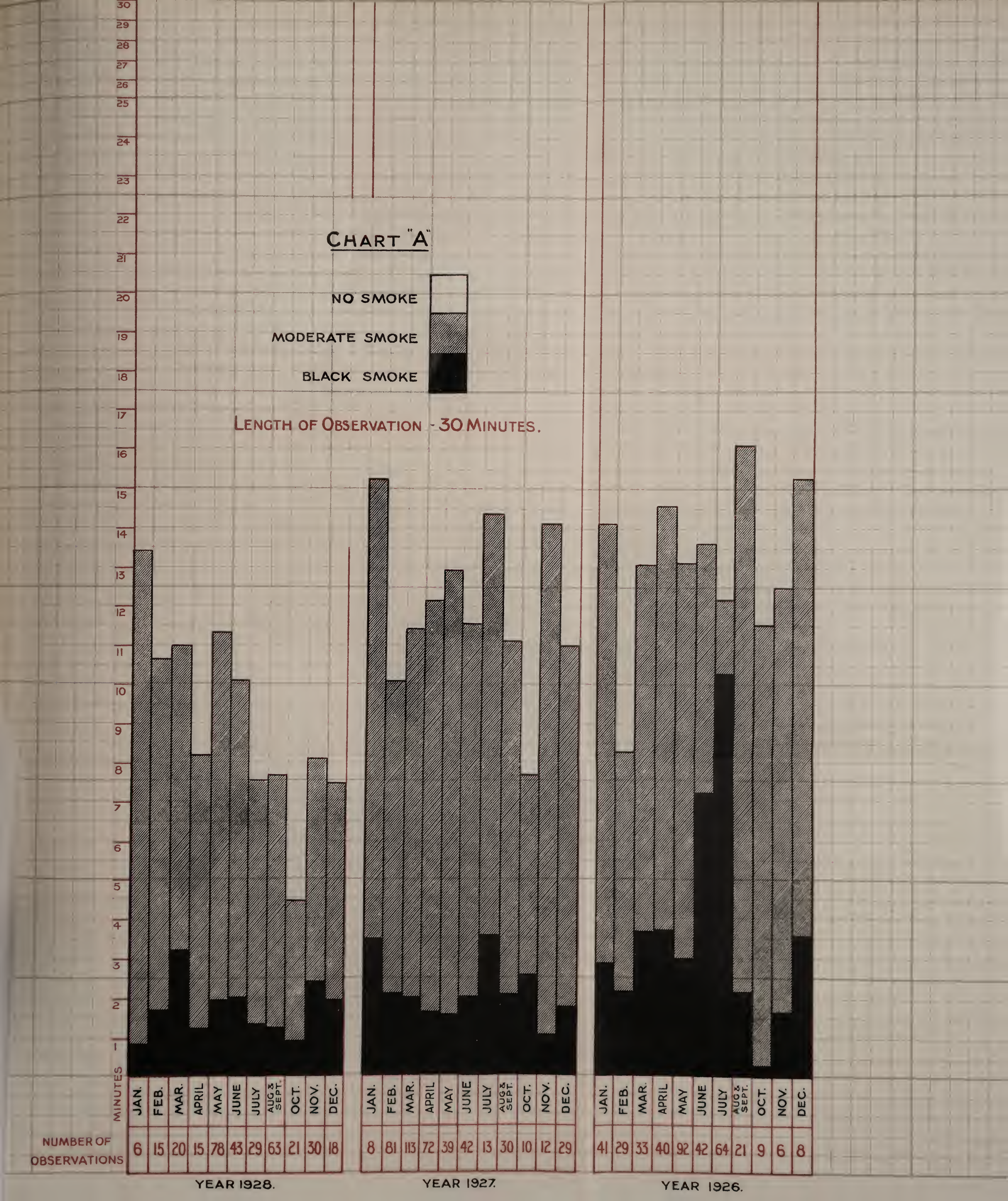


CHART "A"

NO SMOKE
MODERATE SMOKE
BLACK SMOKE
LENGTH OF OBSERVATION - 30 MINUTES.
MINUTES
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG & SEPT.
OCT.
NOV.
DEC.
NUMBER OF OBSERVATIONS
6
15
20
15
78
43
29
63
21
30
18
8
81
113
72
39
42
13
30
10
12
29
41
29
33
40
92
42
64
21
9
6
8
YEAR 1928.
YEAR 1927.
YEAR 1926.

has been paid to ventilation, cleanliness, condition of the dressing rooms and, in the case of picture houses, the proximity of the front seats to the screen. The standard laid down in the Interim Report of the Joint Committee on Eyestrain in Cinemas appointed by the Illuminating Engineering Society in October, 1919, which has been adopted, was given in the report for 1921.

In five cases cinemas were unsatisfactory as regards sanitary defects, and have been improved.

During the year the District Inspectors paid 149 official visits to places of entertainment.

13. Shops Acts, 1912 and 1913.

The administration of these Acts was transferred to the Police on January 1st, 1924.

14. Vans.

The vans used as permanent residences in the Borough are under constant supervision. Owing to the difficulty in obtaining housing accommodation it has been sufficiently satisfactory if the van dwellers were provided with water, means of disposal of refuse and could secure the use of closet accommodation. During the Whit-Week Fair 39 vans visited the town and were stationed in and about the Market Place. They housed approximately 113 persons. Special arrangements made on their behalf included the daily cleansing of the ground in the early morning by the Cleansing Department and the disinfection of the area. Water supply was specially provided by the Water Department and use made of the public sanitary conveniences in Earl Street, Birley Street and Church Street. During the week the Sanitary Inspectors visited the vans daily and made enquiries as to the health of the inmates. Three hundred and fifty-two such visits were made.

While these vans are occupied by respectable and responsible persons it is necessary to say that their presence in the centre of the town raises special sanitary problems which would become acute in the event of an outbreak of dangerous infectious disease.

A report on tents and vans was submitted to the Committee in December, 1927, and was published in my annual report for 1927. At the time of writing there are 36 vans permanently established in the Borough. They are situated in Raglan Street (4), Grimsargh Street (12), Strawberry Gardens (7), Dog and Partridge Yard (6), Stable Yard, Ribbleton Lane (7). The District Inspectors paid 622 visits to these habitations.

15. Miscellaneous.

In addition to the work under the foregoing heads, a large volume of inspection under miscellaneous heads was carried out. These were :—

Offensive Accumulations	18 visits
Animals so kept as to cause a nuisance	41 visits

16. Smoke Observations.

There are approximately 140 chimneys in the Borough, and observations have been made upon 70 of them, giving 338 half-hour observations during the year. No observations were made on 70 chimneys.

The attached chart "A" shews the rise and fall of the monthly averages of black and moderate smoke, the number of observations on which the averages are based being given at the foot of the monthly columns. For comparison, the chart also deals with the years 1926 and 1927.

In general, the results of the observations are extremely unsatisfactory. The effects of the pollution of the atmosphere with sooty particles and grit are deleterious to both persons and things. Not the least serious effect of atmospheric pollution is the cutting off of the natural sunlight which is so necessary for the growth of children.

The Public Health (Smoke Abatement) Act, 1926, which came into force on July 1st, 1927, should improve matters in that the sending forth of smoke in such quantities as to be a nuisance, may be dealt with as a nuisance notwithstanding that the smoke is not black smoke. Also the expression " smoke " is to include soot, ash and grit. Penalties are increased and local authorities are given power to make bye-laws for the further control of smoke abatement. The adoption of these bye-laws is still under consideration. A very helpful provision is the power to include in building bye-laws a bye-law requiring the provision in new buildings, other than dwellinghouses, of such arrangements for heating and cooking as are calculated to prevent or reduce the emission of smoke.

17. Disinfection.

The Disinfectors are responsible for the disinfection of premises after infectious disease and after death from tuberculosis or change of address of persons suffering from tuberculosis. The work is summarised at the end of this section.

18. Canal Boats Acts, 1877 and 1884.

The past year shows no change in the registration or cancellation of boats, the numbers being 58 registered and 29 cancelled, thereby leaving 29 still on the register. Twenty-seven boats were inspected, an aggregate of 190 visits being paid to same.

The number of infringements of regulations total 23, and were satisfactorily dealt with. These related mostly to painting and general delapidations as will be seen by the following statement, legal proceedings not being required in any instance.

New Decks	4
Decks caulked	12
Bulkheads repaired	6
Floors repaired	7
General repairs	9
Exteriors painted	14
Interiors painted	9
Total	61

The condition of the boats regarding cleanliness was satisfactory, the crews seeming to vie with each other in this respect. Hospital accommodation is provided at the Borough Isolation Hospital. There has been no case of infectious disease reported during the year.

The work of inspection has been carried out by Inspector H. S. Holden in addition to his other duties of Port Sanitary Inspector, no special remuneration being provided for this part of his work.

The following summary shows the details of occupation and inspection during the past five years :—

	1924	1925	1926	1927	1928
Number of inspections	189	194	293	169	190
Males in occupation...	36	30	27	31	27
Females in occupation	14	13	9	8	9
Children in occupation	6	5	2	3	5

Of the 41 persons in occupation in 1928, five were children under school age.

E.—HOUSING.

That portion of the work of the Public Health Department relating to the fitness of dwellings has been dealt with in Section II. A summary appears in the appended Schedule :—

In the inspections under the Housing Regulations, 1910, attention is directed to the number of rooms per house, and the number of persons occupying them.

The enquiries show no evidence of gross overcrowding, the average number of persons per house being 4.01, as compared with 4.26 at the 1921 Census; five houses (2.05 per cent.) were overcrowded. The occupants of these over-crowded houses numbered 50 or 5.10 per cent. of the whole; the corresponding percentage at the 1921 Census was 7.4.

The Census of 1921 gives the population of the Borough as 117,406, an increase of 293 since 1911. The Registrar-General estimates the population in the middle of 1928 to be 127,100, the same figure as in 1927, and an increase since 1911 of 9,987. The natural increase, that is, the excess of births over deaths, was 8,780.

The houses erected since the 1911 Census are shewn below to amount to 3,793, which, on the basis of 4.31 persons per house—the density at the 1921 Census—is sufficient to house 16,348 persons, and more than allows for the natural increase.

Notwithstanding these figures, evidence of discomfort and of social and hygienic degradation caused by the bad housing conditions is to be found by anyone whose business takes them among the people.

No. of Houses built each year 1911 to 1928.

Year	No.	
1911	193	
1912	143	
1913	142	
1914	118	
1915	95	
1916	45	
1917	19	
1918	2	
1919	1	
1920	13	
1921	8	+226 by the Council.
1922	33	+244 ,, ,,
1923	50	
1924	186	
1925	367	+190 ,, ,,
1926	248	+253 ,, ,,
1927	409	+110 ,, ,,
1928	278	+420 ,, ,,
	2350	+1443 ,, ,,

The following information has been extracted from the minutes of the Housing Committee for January, 1929:—

HOUSING ACT, 1925.

Total amount of advances	£504,150 19s. 0d.
Amount outstanding at date	£433,572 12s. 4d.
No. of Houses	1223

SMALL DWELLINGS ACQUISITION ACTS.

Total amount of advances	£198,018 0s. 0d.
Amount outstanding at date	£157,512 14s. 6d.
No. of Houses	602
No. of Subsidy houses in respect of which Certificate "A" has been issued	1588
No. of Subsidy houses completed	1271

A point of considerable public health importance has arisen with regard to new housing built by private enterprise under the Subsidy scheme.

The contractors under these schemes have laid out the land in streets and have built up their property in much the same way as the Corporation in building their housing areas, Holme Slack, Ribbleton, Delaware Street and Callon House. There is, however, this important difference : the Corporation have, with the building of the houses, made and finished the roads, whereas the roads in privately developed land are unmade and no provision is made for carrying off surface water. Examples may be seen in Inkerman Street N., Lytham Road, Symonds Road and district, Murdock Road, Windsor Avenue, St. Gregory's Road and Skeffington Road district, and Herschell Street district. In these houses, there is an increased possibility of the introduction of dust in dry weather and mud in the winter. The lack of street drainage tends to keep the surface water about the foundations. The property suffers and with it the morale of the inhabitants by the consciousness of a general untidyness and dirty approach to their homes.

In normal private housing development, the cost of road making falls upon the owners of the houses and is apportioned in proportion to the amount of frontage owned by each. In the subsidy schemes, the frontages are approximately from 18 feet to 36 feet; corner houses having frontages to two streets may have approximately 72 feet of frontage of pay for. The approximate cost of making up a 36 feet street is 32s. 0d. per lineal foot of frontage.

It is true to say that the majority of persons who have purchased subsidy houses have stretched their resources to the utmost to do so.

In a perceptible number of instances, the continuation of the instalments has been rendered impossible by an unforeseen change in the financial position of the purchasers, such as that caused by the loss of work or the onset of sickness. Under these circumstances, it is clearly out of the question for the local authority to undertake the street making and pass on the charges to the householders. It would result in a large scale desertion of the property and a heavy loss to the Corporation.

It is not within my competence to make any suggestions as to a remedy, but one is bound to suggest that the rapid deterioration of the property and the tendency slumwards of the areas in question should receive careful consideration.

HOUSING SCHEDULE.

Number of new houses erected during the year :—

(a) Total	698
(b) As part of a municipal housing scheme	420

1.—INSPECTION.

Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts)	5789
Number of dwellinghouses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	244*
Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—

* Included in 5,789 above.

Number of dwellinghouses (exclusive of those referred to in the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	3182

2.—REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their Officers	3048

3.—ACTION UNDER STATUTORY POWERS.

(a) Proceedings under Section 3 of the Housing Act, 1925 :—

Number of dwellinghouses in respect of which notices were served requiring repairs	3
Number of dwellinghouses which were rendered fit—	
(a) by Owners	2
(b) by Local Authority in default of owners	1
Number of dwellinghouses in respect of which Closing Orders became operative in pursuance of declarations by owners intention to close	Nil.

(b) Proceedings under Public Health Acts—

Number of dwellinghouses in respect of which notices were served requiring defects to be remedied	62
Number of dwellinghouses in which defects were remedied—	
(a) by Owners	62
(b) by Local Authority in default of owners	—

(c) Proceedings under Sections 11 and 14 of the Housing Act, 1925.

Number of representations made with a view to the making of Closing Orders	—
Number of dwellinghouses in respect of which Closing Orders were made	—
Number of dwellinghouses in respect of which Closing Orders were determined, the dwellinghouses having been rendered fit	—
Number of dwellinghouses in respect of which Demolition Orders were made	8
Number of dwellinghouses demolished in pursuance of Demolition Orders	—
Number of dwellinghouses voluntarily demolished	5

APPENDIX
TO
SECTION II.

TABLE IIa.

	Sanitary Districts.						
House Inspections.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Total
Inspected on Complaint ...	812	828	917	1240	637	392	4826
Re Infectious Diseases ...	157	217	135	74	18	118	719
Housing Acts	99	57	62	...	...	26	244
Totals	1068	1102	1114	1314	655	536	5789
Re-Inspections.							
Inspected on Complaint ...	1243	756	882	516	1277	1029	5703
Re Infectious Diseases ...	101	59	35	17	21	88	321
Housing Acts	71	21	17	25	8	35	177
Totals	1415	836	934	558	1306	1152	6201
Drain Inspections.							
Street Gullies	2	4	...	...	11	...	17
Drains	563	459	988	193	509	92	2804
Re-Inspections.							
Street Gullies	2	2	...	...	10	...	14
Drains	832	615	874	445	950	880	4596

TABLE IIb.

Summary of Sanitary Improvements effected.

	Public Health Acts. Sanitary Districts No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Total	Housing and Town Planning Acts. Sanitary Districts No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Total
Houses dealt with :—	**528**	**596**	**808**	**272**	**478**	**286**	**2968**	**41**	**8**	...	...	...	**31**	**80**
1 Lighting and Ventilation improved ...	52	32	17	7	4	16	128	22	8	...	...	...	6	36
2 Roofs reconstructed or repaired	88	68	186	24	57	28	451	9	5	...	...	...	1	15
3 Floors repaired or relaid	12	13	45	5	3	9	87	2	3	...	...	...	1	6
4 Fireplaces repaired or provided	3	2	26	...	1	5	37	2	...	...	...	...	3	5
5 Staircases repaired	1	20	45	3	4	8	81	3	...	...	...	...	1	4
6 Walls and chimneys pointed and repaired	51	36	107	26	50	30	300	14	7	...	...	...	3	24
7 Repairs and renewals to W.C. accommodation	80	71	88	38	111	89	477	17	6	...	...	...	3	26
8 Portable ashpails provided	130	60	103	27	119	34	473	...	...	...	...	...	...	...
9 New Sinks or other sanitary fittings...	5	32	25	12	12	10	96	...	4	...	...	...	...	4
10 Yard and lobby pavements repaired...	28	33	77	34	33	26	231	...	...	...	...	...	...	...
11 Drains tested, repaired or renewed ...	150	326	208	128	129	75	1016	1	...	...	...	...	3	4
12 Gutters and downspouts repaired or renewed	36	35	73	18	17	22	201	12	4	...	...	...	4	20
13 Provided with sufficient water supply..	7	23	35	7	9	6	87	...	...	...	...	...	4	4
14 Plasterwork and limewashing	29	49	88	18	28	24	236	17	8	...	...	...	9	34
15 General nuisances	12	11	35	30	16	14	118	16	...	...	...	...	...	16

TABLE IIc.

List of Factories and Workshops on Register during the Year 1928.

		District						
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Total
Artificial Teeth Makers		3	5	8	7	4	5	32
Bakers and Confectioners (Retail)		44	52	46	25	23	27	217
Bakers (Public)		...	2	...	1	...	...	3
Basket Makers		...	2	2	...	1	...	5
Beer Bottlers		1	3	2	1	3	3	13
Biscuit Makers		...	1	2	...	...	...	3
Boot, Shoe, and Clog Makers, Leather Curriers		19	25	30	26	14	27	141
Brass Founders		...	1	1	1	1	1	5
Breweries		...	2	1	...	...	2	5
Brush Makers		1	...	...	...	1	1	3
Cabinet Makers, Wood Carvers, Upholsterers...		3	12	6	7	7	9	44
Coach Builders		1	2	...	5	...	4	12
Cotton Waste Cleaners and Dealers		...	3	...	2	...	...	5
Cotton Manufacturers		15	8	13	7	...	9	52
Coopers		...	1	2	1	...	...	4
Cycle Makers and Enamellers		1	6	6	4	...	3	20
Engravers		...	1	...	1	3	...	5
French Polishers		1	3	...	2	2	2	10
Ironfounders, Motor Engineers & Boiler Makers		9	12	6	12	7	5	51
Joiners, Builders, Wheelwrights, Wood Turners		10	18	7	6	8	16	65
Laundries		2	...	2	...	...	...	4
Marine Store Dealers		...	5	2	3	...	2	12
Milliners, Dressmakers, Underclothing Manufacturers		28	53	43	38	20	9	191
Picture Framers, Mount Cutters, Gilders		1	3	2	1	1	...	8
Photographers		...	2	1	7	3	2	15
Plumbers, Painters		10	10	14	11	14	8	67
Printers, Bookbinders		...	4	...	8	13	4	29
Restaurant Keepers		3	25	31	4	7	2	72
Rope and Twine Makers		1	1	...	...	...	...	2
Saddlers		1	4	1	2	...	1	9
Smiths, Black and White, and Tinplate		2	12	5	6	6	2	33
Stone and Marble Masons		3	1	2	1	...	2	9
Sugar Boilers		...	1	...	1	2	...	4
Tailors		9	22	8	18	31	11	99
Watch Makers and Jewellers		1	9	3	6	3	7	29
Wire Workers		...	2	2	...	...	1	5
Offensive Trades	Fell Mongers	...	...	...	...	...	...	...
	Soap Boilers	...	...	...	1	...	...	1
	Fat and Tallow Melters	1	1	...	1	...	2	5
	Knacker Yards	...	...	...	...	...	1	1
	Gut Scrapers	...	1	...	...	...	...	1
	Tripe Boilers	1	2	2	...	...	...	5
Various		11	13	16	23	21	37	121
Total		182	330	266	239	195	205	1417

TABLE IId.

Factories, Workshops, Workplaces and Home-Work.

1.—INSPECTION.

Premises.	Number of Inspections.	Number of Written Notices.	Number of Prosecutions.
Visits to Warehouses	374	...	...
Factories (including Factory Laundries)	171	...	...
Workshops (including Workshop Laundries)	1024	1	...
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	379	...	...
Total	1948	1	...

2.—DEFECTS FOUND.

Particulars.	Number of Defects. Found.	Number of Defects. Remedied.	Number of Defects. Referred to H.M. Inspector.	Number of Prosecutions
Nuisances under the Public Health Act :—				
Want of Cleanliness	21	21	...	
Want of Ventilation	...	...	...	
Overcrowding	...	...	...	
Want of drainage of floors	8	8	...	
Other Nuisances	24	24	...	
Sanitary accommodation — insufficient	3	3	...	
Sanitary accommodation — unsuitable or defective	8	8	...	
Sanitary accommodation — not separate for sexes	...	...	...	
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	
Breach of special Sanitary requirements for bakehouses (s.s. 97 to 100)	...	...	...	
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	...	...	...	
Total	64	64	...	...

TABLE IIe. HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLESOME PREMISES, SECTION 108			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending Lists.	Prosecutions.		Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110)	Prosecutions (Sections 109, 110).
	Twice in the Year.			Once in the Year.				Failing to keep or permit Inspection of Lists.	Failing to send Lists.						
	Lists.	Outworkers. Contractors.	Outworkers. Workmen.	Lists.	Outworkers Contractors.	Outworkers Workmen.									
Wearing Apparel :—															
(1) making, &c.	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(2) cleaning and washing	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	4	...	...	1	...	...	...	...	...	...	...	...	...	...	...

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Factories	197
Workshops	669
Workplaces	331
Retail Bakehouses	217
Public do.	3
Total number of Workshops on Register	1417

5.—OTHER MATTERS.

Class.		Number.
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (s. 133) 1901 ...		...
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5). 1901	Notified by H.M. Inspector	16
	Reports (of action taken) sent to H.M. Inspector...	16
Other		...
Underground Bakehouses (s. 101) :—		
Certificates granted during the year		...
In use at the end of the year		...

TABLE IIF.

Summary of Work done under the Factory and Workshop Act during the Year 1928.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District	No. 6 District	Total.
Number of Factories and Workshops on Register	182	330	266	239	195	205	1417
,, Circular Letters sent re Out-workers	...	...	...	...	...	...	...
,, Out-workers reported	...	8	...	...	1	..	9
Visits to Factories and Workshops	158	467	474	60	360	202	1721
,, Retail Bakehouses	44	87	46	20	23	7	227
,, Public Bakehouses	...	24	...	...	...	...	24
,, Home-workers premises	...	8	...	...	1	...	9
Drains tested	...	...	1	...	4	1	6
DEFECTS FOUND AND REMEDIED :--							
Defective Drains	...	...	1	1	4	2	8
,, Slopstone Pipes	...	...	.	...	...	...	...
,, Spouts and Roofs	1	1	...	...	1	3	6
,, Water Closets	2	...	1	2	2	1	8
,, Yard Pavement	...	...	...	...	...	...	...
Limewashing required	5	2	4	5	3	2	21
General Nuisances	1	3	...	2	3	3	12
Insufficient W.C. accommodation for Females	...	1	1	...	...	1	3
Insufficient W.C. accommodation for Males	...	...	...	...	...	...	...
No receptacle for refuse	...	...	1	...	1	...	2
Manure Accumulations	...	...	2	...	1	1	4
Overcrowded	...	...	...	...	...	...	...

Total defects found, 64; remedied, 64.

TABLE IIG.

Disinfection.

	District **No. 1**	District **No. 2**	District **No. 3**	District **No. 4**	District **No. 5**	District **No. 6**	**Total**
Beds	100	98	95	84	18	61	456
Mattressses	30	18	27	40	11	17	143
Bolsters	94	100	86	88	22	51	441
Pillows	227	283	196	188	70	136	1100
Other items of Bedding, etc.	116	211	146	137	43	176	829
Houses	159	137	150	131	68	83	728
Rooms	78	105	120	76	33	66	478
Schools	2	4	2	1	2	2	13
Institutions	...	7	...	2	10	...	19
Jumble Sales	6	23	5	17	4	7	62
Vehicles	...	2	...	...	...	...	2
Books	201	203	104	101	105	321	1035

TABLE IIh.

Houses Let in Lodgings.

Situation	No. of premises	No. of lettings	No. 1 room per let	Persons		No. 2 rooms per let	Persons		No. 3 rooms per let	Persons	
				Over 10 years of age	Under 10 years of age		Over 10 years of age	Under 10 years of age		Over 10 years of age	Under 10 years of age
Lancaster Road	1	5	1	2	...	4	10	4	...	...	...
Moor Lane & North Road	1	3	2	2	...	1	3	1	...	...	...
Fylde Road	1	7	6	14	13	1	2	1	...	...	...
Library Street	10	38	34	64	22	4	10	3	...	...	...
Stoneygate...	8	37	31	70	29	6	17	5	...	...	...
St. John's Place	3	14	14	25	10	...	...	...	...	...	...
Rose Street	2	7	7	13	...	...	...	...	...	...	...
Shepherd Street	2	8	7	14	...	1	2	...	...	...	...
William Street	1	3	2	3	1	1	5	...	...	...	...
Manchester Road ...	4	22	21	35	6	1	2	1	...	...	...
Pleasant Street	1	8	8	16	8	...	...	...	...	...	...
TOTALS	34	152	133	258	89	19	51	15	...	...	...

Population—	Over 10 years of age ...	309
	Under 10 years of age ...	104
	Total	413

TABLE III.

Occupation of Houses.

Enquiries re Housing—244. Total Occupants—979.

No. of Rooms per House.	Number of Persons per House.												Total.	
	1	2	3	4	5	6	7	8	9	10	11	12		
	No. of Families.												Houses.	Occupants.
1 Room ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Rooms ...	...	1	...	...	...	...	...	...	...	...	...	...	1	2
3 Rooms ...	1	3	...	2	1	1	...	...	...	...	...	...	8	26
4 Rooms ...	7	37	34	24	27	16	8	3	2	1	...	...	159	618
5 Rooms ...	1	6	13	15	9	5	6	...	2	...	2	...	59	269
6 Rooms ...	...	2	8	3	1	1	1	...	...	...	...	...	16	58
7 and over ...	...	...	...	...	...	1	...	...	...	...	...	...	1	6
Total Families ...	9	49	55	44	38	24	15	3	4	1	2	...	244	...
Total Persons ...	9	98	165	176	190	144	105	24	36	10	22	...	...	979

The figures above the heavy lines represent families living under conditions of overcrowding, that is, more than two persons per room.

III.—Port Sanitary Administration.

A.—PORT SANITARY DISTRICT.

The Port Sanitary district of Preston extends from Formby Point on the south, to a point 200 yards south of the south Blackpool pier on the north. The dock, which is 3,200 feet long by 600 feet wide, covers 40 acres, and is approached by the entrance basin, 850 feet long by 300 feet wide, which covers 4¾ acres.

The communicating locks are 550 feet long and 66 feet wide, with a depth of 29 feet 6 inches at high water ordinary spring tide. The docks are situated in the Borough, and are about 16 miles up the River Ribble from deep water at the bar.

The quays are 1½ miles long. There are 170 acres of storage ground and 37,489 superficial yards of covered floor space.

The dock is equipped with hydraulic and steam cranes, and has ample railway facilities.

The cattle lairage accommodates 600 cattle, and 1,250 sheep or pigs.

1. Amount of Shipping entering the Port during 1928.

1,092 Ships, of which 226 were foreign, entered the port. The details showing the tonnage, classification, etc., coastwise and foreign, and the method of propulsion, is shown in Table IIIa at the end of this section.

2. Character of Trade of Port.

(a) There is no passenger traffic.

(b) Cargo traffic is principally with the Irish Free State, Norway, France, the Baltic Ports and other countries, as detailed in Table IIId at the end of this section.

The principal exports are coal, coke, machinery and salt cake.

3. Source of Water Supply.

(a) The port derives its water from the town supply, an upland surface water of good quality.

(b) Boats are supplied from the above source.

(c) Water boats are not used.

4. Infectious Disease.

Vessels arriving with cases of Cholera, Plague or Yellow Fever, and vessels which, though not infected, have been so infected within, in the case of Cholera and Plague, a period of seven days, and in the case of Yellow Fever, 18 days, are inspected in the case of vessels coming to Preston at the centre of the Albert Edward Dock, and in the case of vessels coming to any other part of the port at the " Gut Gas Buoy " situate at the Bar.

Vessels arriving from suspected ports are inspected upon the request of H.M. Customs Officer.

All vessels are visited upon arrival by the Port Sanitary Inspector.

The following arrangements for notification to the Port Sanitary Authority of the arrival of inward vessels requiring special attention are in operation.

H.M. Customs and the Pilots are in touch with shipbrokers who have wireless and other information as to probable time of arrival.

The barge repair depôt in the river just below Lytham about 9½ miles from Preston, is in telephonic communication with H.M. Customs and the Pilots.

All vessels are boarded by the Port Sanitary Inspector and the Port Medical Officer as detailed above.

The following arrangements for the disposal of cases of infectious disease and for observation or surveillance of contacts are in being.

Cases of infectious disease are removed to a special ward at the Borough Isolation Hospital approved for the purpose by the Ministry of Health.

Contacts will be kept under observation or surveillance in the ship by the Port Medical Officer.

Infected quarters are disinfected by fumigation by sulphur dioxide by the Port Sanitary Inspector. Infected bedding and clothing are removed by van to the Corporation Disinfecting Station in Argyll Road.

Cleansing of persons will be carried out at the above station.

Ambulance facilities are provided from the Isolation Hospital.

Venereal Disease.

Enquiries as to the existence of these diseases are made by the Port Sanitary Inspector. Leaflets and posters printed in English, Norwegian and Swedish are distributed and displayed. Treatment, free of cost, is provided at the Preston Royal Infirmary.

Bacteriological examinations are carried out at the Public Health Laboratory, Manchester.

There were no cases of infectious disease landed from vessels, nor were any such cases reported to have occurred during the voyage.

5. Measures against Rodents.

Steps taken for detection of rat plague.

Enquiries are made by the Port Sanitary Inspector and the rat-catcher as to mortality among rats. Daily observation is made by the rat-catcher—a whole-time man, and any undue mortality reported to the Port Medical Officer who makes necessary arrangements with the Public Health Laboratory, Manchester, for bacteriological examination.

The passage of rats between ship and shore is prevented by rat guards placed on cables.

Ships are deratised mainly by dogs, ferrets and traps, in some instances supplemented by fumigation by means of sulphur dioxide.

Premises in the vicinity of ships are subject to daily poison baiting, lithographer's varnish, traps, and the work of dogs and ferrets.

A whole-time rat-catcher keeps records of his kills, these records being inspected by the Port Medical Officer. Judging by the number of baits set it is estimated that a total number of 2,836 rats were destroyed in the year, of which 167 rats were caught in traps on ships arriving from foreign ports, and 577 by dogs, ferrets and traps. The net total rats caught is 744.

The great majority of the ground floor space in the warehouses is constructed of concrete.

No action has been taken to extend rat-proofing of ships or on shore.

Total baits set—4,450. Caught and taken by poison and varnish—2,092.

6. Food Inspection.

Public Health Imported Food Regulations, 1925.
Public Health Imported Milk Regulations, 1926.
Public Health Preservatives in Food Regulations, 1925-1927.
No food to which these regulations apply enters this port.

Public Health (Regulations as to Food) Act, 1907.

LIST OF IMPORTED ARTICLES INSPECTED.

Indian Corn, Wheat, Sugar, Potatoes.

LIST AND WEIGHT OF ARTICLES CONDEMNED AND DESTROYED.

Potatoes—1 ton 15 cwts. 2 qrs.

The Preston (Shell Fish) Regulations, 1923.

These regulations forbidding the picking of mussels for human food, in the estuary of the River Ribble, came into force in October, 1923. Since then placards have been posted in prominent places on both sides of the River and at Preston. The placards and notices were renewed during 1928. All the fishermen on both the north and south sides of the River and at Preston have been served with a copy of the notice. The mussel beds have been visited regularly by Inspector Henry S. Holden, who paid 15 visits to these beds during 1928.

7.—The Hygiene of Crews Spaces.

In many of the vessels arriving in Preston the crew's spaces, particularly as regards air space, ventilation and lighting, are far from satisfactory. The Scandinavian ships on the other hand are as a rule well designed and form a marked contrast.

In my opinion, action by the Board of Trade with regard to crew's quarters is urgently needed.

APPENDIX
TO
SECTION III.

TABLE IIIA.
Amount of Shipping entering the Port Sanitary District during the Year 1928.

		Number	Tonnage	Number Inspected		Number reported to be defective	Number of Orders Issued
				By the Med. Officer of Health	By the Sanitary Inspector		
Foreign	Steamers	221	214748	36	221	65	65
	*Motor	5	15972	...	5	...	...
	Sailing	...	...	...	...	...	...
Total Foreign ...		226	230720	36	226	65	65
Coastwise	Steamers	859	159339	20	751	172	172
	*Motor	2	121	...	2	...	...
	Sailing...	5	458	...	5	...	...
Total Coastwise ...		866	159918	20	758	172	172
Total Foreign and Coastwise ...		1092	390638	56	984	237	237

*Includes mechanically-propelled vessels other than steamers.

TABLE IIIB.
Rats destroyed by dogs, traps and ferrets, and number of Baits set for destruction of Rats in 1928.

Number of	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.	Total In Year
Brown Rats	180	64	100	62	100	111	146	90	100	120	190	100	1363
Black Rats	207	50	118	61	108	90	113	126	125	200	132	143	1473
											Total...		2836
No. of Baits set.	512	157	122	171	397	337	376	438	463	535	526	416	4450

By Baits.								By Traps or Dogs			By other Methods.	
Phosphorous		Squills		Barium		Varnish		Warehouses	Ships	Docks	Warehouses Docks	Total
Set	Taken	Set	Taken	Set	Taken	Set	Caught					
2442	1074	1418	616	405	181	185	221	437	167	104	36	2836

TABLE IIIc.

Report of Port Sanitary Work for the Year 1928.

Foreign	Steamships inspected	221
	Sailing Vessels inspected	—
	Motor Boats inspected	5
	Re-inspections	270
Coastwise	Steamships inspected	751
	Sailing Vessels inspected	5
	Motor Boats inspected	2
	Re-inspections	503
Condition of all Vessels inspected	Good	747
	Defective: Foreign 65 Coastwise 172	237

Foreign—10 Wear and Tear ; 231 Dirty.
Coastwise—17 Wear and Tear ; 428 Dirty. Total 686

Defects Remedied—

Forecastle re-painted	—
,, cleansed	111
Dirty Lockers, Washhouses, Store Rooms, etc., cleansed	249
Foul Water Tanks cleansed	2
Foul and defective W.C.'s cleansed and repaired	231
Accumulations of Offensive Rubbish removed	42
Damp Quarters remedied	1
Leaky Decks overhead caulked	2
Defective Port-lights, Sky-lights and Dead-lights remedied	13
Defective Lavatory Waste Pipes, and Ventilators repaired	1
Defective Stove replaced	10
Dirty Galleys cleansed	24
Dirty Chain Lockers	—
Total	686

TABLE IIId.

Trade of Port.

The Chief Imports	Source	The Chief Exports	Destination
Wood Pulp	Canada, Germany, Sweden, Norway, and Finland	General	Dublin & Belfast
Timber	Canada, Norway, Russia, Roumania, Germany, Sweden, and Finland	Coal and Coke Machinery	Ireland and Baltic Ports Ireland
Stone	Norway, Wales, Scotland and Ireland	Salt Cake	Baltic Ports
China Clay	Cornwall and Devon	Gas Retort Carbon	France
Potatoes	Ireland		
Live Stock	Dublin		
Esparto Grass	Oran and Azew		
Cement	London, Belgium and France		
General	Sweden, Belfast, Dublin, Germany, Norway and Finland		
Whiting	London and Cornwall		
Motor Spirit	London and Texas via Amsterdam		
Slates	Wales		
Roof Tiles	France		
Round Timber	Scotland & Ireland		
Grain	Belfast, Dublin and Liverpool		
Sugar	Hamburg		
Bog Ore	Antwerp		
Pitwood	Scotland		

IV.—Food.

Major FINCH, F.R.C.V.S., D.V.S.M., Veterinary Officer.

A.—MILK SUPPLY.

Milk retailed in the Borough amounts approximately to 6,576 gallons daily, or 8 ounces per head per day, compared with 6,434 gallons daily and 8 ounces per head per day in 1927.

(*a*) Produced Daily in the Borough:

8 Cowkeepers in the Borough produce	259 galls.

(*b*) Retailed Daily in the Borough:

(1) 56 Dairies in the Borough retail	2283	,,
(2) 12 Resident Kitters in the Borough retail	273	,,
(3) 39 " Mixed Business " Shops retail	815	,,
(4) 8 Cowkeepers in the Borough retail	204	,,
(5) 110 Dairy Farmers outside the Borough retail ...	2842	,,
(6) 41 Purveyors of sterilized bottled milk retail ...	34	,,
(7) 11 Purveyors of " Grade A" bottled milk retail ...	122	,,
(8) 1 Purveyor of " Certified " bottled milk retails ...	3	,,

Cowkeepers in the Borough, who are reduced in number from 10 to 8, are producing daily 95 gallons less and retailing daily 160 gallons less than in the previous year. 178 cows are kept in the Borough.

Resident kitters, who have increased in number from 6 to 12, are retailing 273 gallons daily, as against 166 gallons in 1927.

There are 110 dairy farmers outside the Borough as against 96 in 1927.

96% of the milk consumed is produced outside the Borough.

The figures as to the amount of milk sold are based upon estimates provided by the traders concerned. They are approximate only.

The supervision of the milk supply has necessitated the following work:—

Visits to Dairies, Cowsheds and Milkshops in the Borough:

By Veterinary Officer	29.
By Sanitary Inspectors	145.
Number of Cattle examined in the Borough ...	612.

Number of samples of milk taken for examination:—

	1926	1927	1928
(a) For Tubercle Bacillus	174	325	257
(b) For contamination by dirt ...	133	214	146
(c) Under the Food & Drugs Act ...	126	82	81

1. Tuberculosis and the Milk Supply.

The policy of frequent sampling for examination for the presence of the tubercle bacillus in milk has been continued. A total of 257 samples were taken from the various sources of supply by the Inspectors during transit and delivery. Biological examination of these samples resulted in 28 market samples, or 10.89 per cent. being found to contain the bacillus tuberculosis. These results were reported to the County Medical Officer of Health, who is responsible for the necessary enquiries as to the source of the infected milk.

The following statement shows the percentage of market milks found to be infected with bacillus tuberculosis during the past three years :—

MARKET MILK (Mixed Samples).

	1926	1927	1928
Number of samples examined	137	325	257
Number bacillus tuberculosis found ...	12	18	28
Percentage	11.41	5.54	10.89

The increased percentage of tubercular milks and the materially reduced numbers of samples of milk taken during the past year shows the desirability of greater expenditure in this respect in the future. The larger the number of samples taken, the greater will be the exclusion of tubercle-infected milk from the market.

The matter of eliminating or reducing the supply of infected milk is left largely to the milk producer. The finding of tubercular samples is, as hitherto, left to the consuming Local Authorities. In about two-thirds of the infected samples, the animal giving tubercular milk is traceable; in the remaining one-third the source of infection remains a mystery. This may be explained as follows : the infected sample may be mixed milk from several farms, the name of one being omitted when the sample was procured. The prolonged period (4—5 weeks) required for the result of the laboratory investigation allows for changes in the milking herd caused by cessation of lactation of certain animals and removal from the herd of diseased or other animals. The latter reason will probably be the prevailing one. Another reason for failure to discover the infecting cow is the fact that milk is occasionally infected by extraneous matter, and this is quite easy to understand when one considers that the fæces of quite a number of animals contains the tubercle bacillus although the animals themselves may be giving perfectly healthy milk and their udders in a normal condition. This circumstance only accentuates the necessity for the production of cleaner milk.

The onus of reporting suspected animals as required by the Tuberculosis Order, 1925, does not appear to be taken seriously by milk producers, and the onus of discovering tubercle-infected milk is left to the Local Authorities where the milk is sold. It is to be regretted that producers of tubercular milk are not dealt with in such a way that an incentive is given to produce milk that is tubercle-free. The following is an example of the state of affairs : One of the 28 positive tubercular samples taken in this Borough during the year was from a farmer dealt with on two previous occasions. When visited, he had two cows milking with tubercular udders and one cow suffering from advanced clinical tuberculosis. All three animals were so obviously diseased that they were sent to the knacker. Here is an instance where three obviously diseased animals ought to have been reported under the terms of the Tuberculosis Order, 1925, but is was only through the sampling of the milk by another Authority that the state of affairs came to light, and even then the consumption of diseased milk went on more than a month after the sample had been taken.

As stated in my previous reports, the production of milk should be under definite supervision by competent persons, and the health of the cattle subject to direct control in the form of periodical inspection. Such inspection would compel farmers to notify suspected disease rather than run the risk of it being discovered by the chance visit of a Veterinarian, and the possibility of being prosecuted for failure to report.

2. Examination for the Approximate Amount of Butter Fat and Manurial Contamination.

This examination is carried out by your Veterinary Officer. One hundred and forty-six samples of milk were examined and 68 of these, or 46 per cent., compared with 21 per cent. last year, were found to be unsatisfactory.

The explanation for this large increased percentage of unsatisfactory samples is the continued production of unsatisfactory supplies together with the fact that the apparatus now in use condenses any extraneous material in the milk and shows up more vividly the degree of contamination. As seeing is believing, the practice has now been established of sending half the contaminated pad to the person responsible for the milk sampled.

3. Bacterial Contamination.

In addition to the biological examination for the bacillus tuberculosis made by the Public Health Laboratory of the Liverpool University, a microscopical examination and count is made to ascertain the presence of the colon bacillus, the bacillus enteritidis sporogenes and allied organisms whose normal habitat is manure. Two hundred and fifty-seven samples were examined during the year, and 88 of these showed freedom from any contamination whatsoever. Thirty-two showed contamination to a high degree.

Colon bacilli were found present in the following dilutions of a cubic centimetre :

Cols. 1	2	3	4	5	6
1 cc.	1/10 cc.	1/100 c.c.	1/1000 c.c.	1/10000 cc.	1/100000 cc.
70	44	22	22	4	6

Streptococci	Bac. Enteritidis Sporogenes	Free from contamination in any dilution
3	7	88

The interpretation of the above statement indicates in cols. 1, 2 and 3 slight unavoidable contamination, in col. 4 avoidable contamination, and in cols. 5 and 6 serious contamination. The presence of streptococci and the bacillus enteritidis in any of the above dilutions is also considered to indicate heavy manurial pollution or some disease of the udder.

The Public Health Department, as in previous years, has notified all Borough producers and retailers of unsatisfactory or contaminated samples; it is now also the established practice to notify the County Medical Officer of Health and the Medical Officer of Health of the Rural District in which the milk is stated to have been produced. Notifications to the producers enable them to take such steps as are necessary to improve their milk supplies and the notifications to the Medical Officer of Health of the Local Authorities enable them to co-operate with us in helping to improve the milk supply by visits of their Sanitary Officers to the farms. Col. C. J. Trimble, the Medical Officer of Health of the Preston Rural District Council continues to give valuable assistance in this respect.

There is much room for improvement in the cleanliness of the personnel of milk deliverers and of vehicles used for delivering milk (motor-vans, floats and hand-carts). A clean, well-turned-out vehicle is the best advertisement a milk retailer can have, yet this advertisement is not taken advantage of. This fact can only be construed as a want of public appreciation of more cleanly methods, and until this appreciation from the public is recognised, neither legislation nor the efforts of Local Authorities to improve matters will be of much avail. The quantity of bottled milk retailed is increasing and a large amount of this is " Grade A" milk which appears to be increasing in the public appreciation.

4. Milk and Dairies Order, 1926.

The following prosecutions were taken during the year :—

Milk and Dairies Order, 1926, Sec. 6, sub-sec. (3).

Two cases for carrying on the trade of a dairyman without being registered :—

1st case—fined 10s. od. or seven days.
2nd case—fined cost of Court.

Two cases for using premises as a dairy, such premises not being registered :—

1st case—fined 10s. od. or seven days.
2nd case—fined cost of Court.

B.—MEAT AND FOOD INSPECTION.

1. Inspection of Food at Markets.

Regarding the marking of imported meat under the Sale of Food Order, 1921, action has been taken to enforce the more careful carrying out of this Order. The Order was issued so that the public might know whether the meat is of foreign origin or not when displayed in the windows. In the past, it appears that the Order has largely been evaded, and instead of labels being displayed on imported meat, traders have labelled English meat which requires no labelling under the Order. One prosecution has been taken during the year and the trader fined £3 and costs. Warning letters have been issued and verbal information given to traders by the Meat Inspector when necessary.

The retail markets show little change; regular inspection takes place, but it has not been necessary to question the quality of any food displayed for sale. In addition to the 15 meat stalls which are inspected each Saturday, there are 2 stalls dealing largely in poultry and game; these also are subjected to weekly inspection and have given no cause for complaint.

There is a wholesale fruit market daily and a retail trade on market days. The quality of the goods exhibited on the market is excellent, and no unsound fruit has been detected during the year which speaks well for the class of produce that is being retailed.

There is a wholesale fish market daily in the early morning at the Fish Market, L.M.S. Railway Station, and retail sales daily in the covered market. The quality of the fish is satisfactory. The amounts dealt with and found unsatisfactory are seen in Table IVa, at the end of this section. The wholesale Fish Market is regularly supervised by Inspector Crossthwaite, 288 visits having been paid. The retail markets (1,136 visits) are also continuously examined.

The neighbouring Port of Fleetwood supplies the largest amount of fish to the town and outlying districts, although consignments are received almost daily from many other fishing centres, viz :—

Wet Fish—Grimsby, Milford Haven, Hull, Swansea, Peterhead, Glasgow, Campbelltown, Rothesay, Oban, Liverpool, Eyemouth, Baltimore, Londonderry and Killibegs.

Dry Fish—Lowestoft, Yarmouth, Hull, Fraserburgh and Wick.

Shell Fish—Cark-in-Cartmel and Barra (Oban).

Rabbits—Dumfries, Kirksanton (Carnforth), Lazonby, Dalbeattie and Hereford.

The quantity of goods reaching the fish markets, over 3,580 tons, and the amount condemned, less than 0.3 per cent., are shown in Table IVa.

At the beginning of the year there were 157 fish fryers on the register. During the year the Council gave consent for the establishment of two additional fish fryers. All these places are under regular supervision (294 visits paid by the Inspectors). It is interesting to note that great interest is being taken by this trade in electricity for the purpose of preparing their goods.

2. Slaughterhouses.

Twelve private slaughterhouses are in use and the number of animals killed therein is to be found in Table IVb. The public slaughterhouses at the Cattle Market account for the greater portion of the meat killed in the town and are managed as well as the present method of administration will allow. It is to be regretted that no advance has yet been made in regard to the provision of accommodation, mentioned in last year's Report, to improve the personal cleanliness of slaughtermen. It becomes more and more obvious that a comprehensive set of bye-laws is a necessity if the Ministry's Memo. 62/Foods is to be given effect.

During the year there has been a considerable decrease in the number of cattle killed in the Borough (see Table IVb). To counterbalance this, an increase has taken place in the importation of fresh-killed meat from surrounding towns. The reason for this is patent when one finds that this meat does not bear a stamp indicating its inspection under proper conditions and by competent persons. Preston is one of the few towns in the country possessing a stamp approved by the Ministry of Health, so that meat traders buying meat from other towns where the system of inspection is less complete operate with an advantage in that respect. The public has the remedy in its own hands which is to buy meat bearing the Preston stamp, but the time seems ripe for universality in meat inspection instead of the great variation in policy which at present obtains even in towns a few miles apart. Actually, every effort is made to inspect this meat on arrival, although the staff is greatly hindered by having to visit the retailers' premises and by the fact that the organs are dressed, have had essential glands removed and do not accompany the corresponding carcases.

Tables at the end of this section deal with the number of animals slaughtered and inspected at the public abattoir and private slaughterhouses respectively, the work of inspection and the classification by disease of meat not considered fit for human consumption.

The total amount of meat condemned as unfit for human food was 157 tons, 13 cwts., 3 qrs., 14 lbs.

An improvement has been secured in the class of calves killed in the Borough, and although immature calves are to be found in the Cattle Market, they are brought by traders from other towns and not killed here. Sheep rendered anæmic by chronic distomatosis have been dealt with more severely and it is satisfactory to find this class of animal disappearing from local slaughterhouses.

On first sight, the number of cows' udders shown in Table IVe to have been condemned as tubercular seems rather high, but it must be remembered that 54 cows were sent in for slaughter by this and other Authorities under the Tuberculosis Order and the majority of these presented obvious lesions in the udders.

C.—DISEASES OF ANIMALS ACTS, 1894-1927.

The diseases scheduled under the above Acts are :—

Anthrax, Foot and Mouth Disease, Parasitic Mange (Horses), Epizootic Abortion (Cattle), Rabies, Sheep Scab, Swine Fever, Cattle Plague, Pleuro-Pneumonia, Sheep Pox, Epizootic Lymphangitis, Glanders and Farcy, Tuberculosis (Cattle).

It is the duty of the Local Authority to carry out the work in connection with these diseases. The procedure for dealing with any outbreaks is laid down in the respective orders made by the Ministry of Agriculture and Fisheries. The administration of the various orders necessitates the inspection of all live stock in the Cattle Market and Saleyards; also the inspection of Cattle in the cowsheds situated within the Borough Area.

One hundred and forty-three visits were made to the Cattle Market and Saleyard and 77 to other premises. Nearly 200,000 animals passed through the Market; the number is presented in detail in Table IVh.

1. Anthrax.

One suspected case was investigated, a microscopic examination was carried out and proved negative.

2. Foot and Mouth Disease.

Restrictions were in force from December 30th, 1927, when Preston Borough was scheduled a controlled area owing to outbreaks at Overton and Heaton-with-Excliffe in the Lancaster Area, until February 14th of this year. Six weeks freedom from disease followed when on March 24th, the disease was found in some pigs at Manchester Market. Owing to this and the transfer of three pigs from that Market to Nateby, near Garstang, which were infected, Preston again became a controlled area. The Store Sale on March 26th was suspended, and on account of the danger of transmission of infection to Preston Cattle Market by pigs from Manchester, a rigorous disinfection of all the lairages was carried out. Restrictions were removed on April 10th.

On July 20th, disease was reported in Cork, Ireland, and a confirmed case reported at Catforth, Woodplumpton. The Cattle Market was closed in consequence. All restrictions were removed on August 31st. On December 15th, an outbreak was confirmed at Hale Bank, near Widnes, but as this was outside the 15 miles radius, Preston Market was not interfered with.

The Orders of the Ministry of Agriculture and Fisheries relating to Foot and Mouth Disease, which came into force during 1928, are as follow.

Orders of the Ministry of Agriculture and Fisheries relating to Foot and Mouth Disease made in 1928.

Foot and Mouth Diseases Order, 1928, came into force on the 1st April. It consolidates and supersedes all other such orders which are now revoked by this Order.

Infected Areas (Restrictions) Amendment Order, 1928. Operating from December 27th, it amends a similar order of 1925, and suggests to Local Authorities to defer publication until the districts concerned are become an infected area.

Importation of Carcases (Prohibition) Amendment Order, 1928. Operating from January 3rd, it amends the order of 1926 in a minor degree.

Foot and Mouth Disease (Boiling of Foodstuffs) Order, 1928. Replaces the 1927 order. This Order places the responsibility on the persons in possession of "foodstuffs or materials specified," also on "persons in charge of animals."

Leaflets dealing with the items in this Order have been distributed to pig keepers, farmers, etc., in the Borough.

Importation of Animals into Ireland. The 1924 Orders forbidding importations into Ireland without certificates of freedom from disease of the district of origin has been withdrawn. Horses, asses and mules, however, can only enter Ireland on a permit.

Quarantine Stations (Regulations) Order of 1928 (1 and 2). No. 1 Order refers to restrictions on such premises. No. 2 refers to animals from Northern Ireland.

Foreign Hay and Straw (Amendment) Order of 1928. Replaces the 1912 Order. This Order also revokes the 1924 Order and schedules Sweden as a non-prohibited country.

Return of the number of outbreaks confirmed by the Board for the last five years :—

Year	Outbreaks confirmed	Animals slaughtered as diseased or exposed to infection
1928	138	11441
1927	114	9610
1926	208	20870
1925	1255	19692
1924	1515	88850

In addition to the Foot and Mouth Disease Orders the following Orders relating to other contagious diseases in animals have been issued during the year :—

Date of Operation.	Order.
April 1.	Sheep Scab Order, 1928.
April 1.	Pleuro-Pneumonia Order, 1928.
April 1.	Cattle Plague Order, 1928.
May 27.	Regulations of Movement of Swine (Adjustment of Boundary) Order, 1928.
June 6.	Sheep Scab (Amendment) Order, 1928.
August 16.	Birkenhead Imported Animals Wharf Order, 1928.
November 1.	Amendment of Chapter 6 (Protection of Animals) of the Foreign Animals Order of 1910, and in Part 7 (Protection of Animals) of the Importation of Canadian Cattle Order, 1923.
November 19.	Foreign Hay and Straw (Amendment) Order, 1928.
December 31.	Importation of Dogs and Cats Order, 1928.

3. Parasitic Mange.

Out of three cases reported as suspected two were confirmed by microscopical examination of skin scrapings. The animals were isolated, and after adequate treatment were released from the restrictions of the order.

4. Tuberculosis (In Cattle).

Under the 1925 Order, three suspected cases have been reported and investigated in the Borough. One cow in milk was found to be suffering from a tubercular condition and two were not affected. The affected cow was dealt with under the terms of the Order and compensation amounting to £9 10s. was paid to the owner. Of this amount, three-quarters was recoverable from the Ministry of Agriculture and Fisheries.

In addition to the foregoing, 37 animals were sent in on licence from the surrounding Local Authorities for slaughter under Form D, Article 5 of the Tuberculosis Order.

As a result of Veterinary Inspection, a further 14 animals were removed from the Cattle Market by order of your Veterinary Officer. All of these were removed under licence and slaughtered under his supervision. The majority of these animals, when killed, were found to be extensively diseased and unfit for food and were surrendered by the owners. Particulars of these are included in the tables relating to Meat Inspection.

As the result of observation for the past few years, it is noted that carcases of cattle and pigs shewing extensive lesions of Tuberculosis come frequently from the same premises. It appears to me, therefore, that useful propoganda work could be carried out to prevent the production of diseased animals if this information was conveyed to the Local Authorities concerned with a view to them taking any action either under the Tuberculosis Order, 1925, or the Milk & Dairies Acts and Orders. What is very evident from the above observations is that Tuberculosis is prevalent in certain districts and on certain farmsteads, in other words it is in " nests," and with a definite policy of conjoint action between Local Authorities and the owners of infected farms, the prevention of the production of many diseased animals could be avoided. Farms from which milk is not sold in its original form, but is made into cheese, are particular examples, as the milk escapes the sampling by which so many infected animals are eventually discovered.

In Table IVi are classified all cattle dealt with under the Tuberculosis Order.

5. Swine Fever.

One suspected outbreak was reported involving 29 animals. The disease was not confirmed and all restrictions were removed after a short period of isolation under the Orders.

The disinfection of the Pig Lairages at the Cattle Market has been supervised from time to time and a report recommending structural alterations to the flooring of one lairage has been rendered to the Markets Committee with a view to facilitating the efficient cleansing and disinfection of that lairage. As Swine Fever is still prevalent and as the mode of infection is chiefly through the markets, the proper disinfection of these lairages is of paramount importance.

6. Sheep Scab.

Although Sheep Scab is still prevalent in Northern and Western Areas, no cases of this disease have been found either in the markets or farms situated in the Borough.

7. Epizootic Abortion (Cattle).

This disease, although prevalent in dairying stock, only concerns Local Authorities in so far as the exposure in a market of any animal known to be suffering from this disease is an offence against the Epizootic Abortion Order, 1922. Posters explaining this Order are renewed annually at the Cattle Market.

There have been no reported or suspected cases of the following diseases under the Diseases of Animals Acts, viz., Cattle Plague, Epizootic Lymphangitis, Glanders (or Farcy), Rabies, Pleuro-Pneumonia and Sheep Pox.

No outbreak of Cattle Plague has occurred in Great Britain since 1877, nor of Pleuro-Pneumonia since 1898. On April 1st, the Ministry issued two new Orders, the Cattle Plague Order, 1928, and the Pleuro-Pneumonia Order, 1928, revoking and re-enacting with amendments the existing Orders of 1895 relating to these diseases. There has been no confirmed case of Rabies in Great Britain since 1922.

8. Cleansing and Inspection of Markets, etc.

Under the Markets Sales and Lairs Order, 1925, and Animal (Transit and General) Amendment Order, 1924, and the Transit of Animals Order, 1927, frequent inspections have been made at the Market, Lairages and Railway Sidings. The disinfecting station erected at the Cattle Market in order to provide proper facilities for float owners to comply with the Transit of Animals Order has been working satisfactorily and kept in constant use throughout the year except during the period of severe frost when the application of liquid disinfectants was impracticable.

Copies of the Transit of Animals Order in leaflet form have been distributed to all vehicle owners carrying live stock to and from the Market and warning notices have been served in several instances. Under the Markets, Sales and Lairs Order, defects in the flooring of lairages and paving in open pens have been reported to the responsible quarters for necessary repairs. Frequent visits have also been made to the Railway Sidings, loading platforms, and the cleansing and disinfecting of these, in addition to the railway trucks, has been kept under supervision.

The following is a list of prosecutions taken in which convictions were obtained for offences under the Diseases of Animals Acts :—

DATE	ORDER.	NO. OF CONVICTIONS.	FINES.
June 15	Animals landing from Ireland, Channel Isles, and Isle-of-Man Order, 1923	1	£5
June 2	Regulations of the Movement of Swine Order, 1922	1	£5 and Costs.
Aug. 18	Foot and Mouth Disease Infected Areas Restrictions Order, 1925	4	£1 each.
		1	5/-

9. Importation of Live Stock from Ireland.

A reference to Table IVJ will illustrate the importance of Preston in this trade. Over 50,000 animals were landed, a considerable increase over the numbers in previous years. The Veterinary inspection of all live stock arriving at the Dock Lairage is carried out by a permanent official of the Ministry of Agriculture and Fisheries. A very small proportion of these animals were slaughtered for emergency reasons, principally fracture of bones. The carcases of these animals were carefully inspected as to their fitness for human food, and any carcases, portions of carcases or offals which were unfit on account of disease or unmarketability for other reasons, were dealt with in the usual way. The amount so dealt with is included in the Food Inspection Tables.

D.—FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Three hundred and forty-five samples of various foods and drugs were submitted for analysis; 26 or 7.5 per cent. were adulterated. This percentage compares favourably with a percentage of 13.5 during 1927. Of the samples taken, 335 were informal and ten were formal samples. The wide range of articles submitted for analysis is seen in the lists on pages 60 and 61.

1. Milk.

Eighty-one samples of milk were taken, of which 79 were genuine. The Public Analyst reported on the remaining two that one was slightly watered and the other contained 8 per cent. of added water.

2. Spirituous Liquors.

Twenty-six informal samples of whiskey, brandy, rum and gin were taken and in six instances there was found to be an excess of water varying from 2 per cent. to 14.3 per cent. In two instances, the sources of seriously adulterated informal samples were then formally sampled and one was found genuine, being 35° u.p., whilst the other contained 8.3 per cent. excess water and was the subject of an unsuccessful prosecution.

3. Rice.

One informal sample was taken, the Public Analyst reporting that it contained 0.18 per cent of Talc.

4. Ground Rice.

One informal sample contained 0.14 per cent. of Talc.

5. Ammoniated Quinine Capsules and Tablets.

Three informal samples were taken and in one instance was found to be deficient in quinine to the extent of 66 per cent. and in the other two cases deficient in ammonium compounds to the extent of 75 per cent. and 65 per cent. The Medical Officer of Health communicated with the vendors, who in turn communicated with the manufacturers. In the first case the Public Analyst gave an opinion that there was a mistake in the mixing; the makers explain that they are at a loss to account for the deficiency and express regret and have withdrawn any remaining stock of the same mixing from the vendor.

The explanation of the manufacturer of the second sample is that the capsules are not sold as a B.P. preparation, which is an official preparation, and owing to the volatile nature of free ammonia combined with the aqueous and spirituous solutions, it would be an impossibility to produce in capsule form. In the third instance, no information is to hand from the manufacturer but the retail chemist states that the deficiency may be due to the ammonium salts being so volatile.

6. Currant Cakes.

One informal sample was taken, the certificate of analysis stating that the sample contained 200 parts of borates, calculated as boracic acid per million parts of the sample. A formal sample was taken and this contained 130 parts of borates, calculated as boracic acid, per million parts of the sample.

The Analyst in this case thinks that the small amount of boracic acid contained arises from some impurity in one of the ingredients and not deliberately added.

These cakes are made in Southport and supplied to the retailer in Preston. The Medical Officer communicated with the Medical Officer of Health of Southport, forwarding a copy of the Analyst's report. The Southport Authorities got in touch with the firm making the cakes and on analysis of the ingredients of the cake in bulk and separately, the boracic acid was traced to the currants supplied to the firm at Southport by a firm of merchants in Liverpool. The Medical Officer of Health of Liverpool was supplied with all the details of the case.

7. Mixed Spice.

Two informal samples were taken; one contained the foreign ingredient as 2 per cent. of sand and siliceous matter and the other 1.2 per cent.

The manufacturers stated that the ingredients are grown in sand, thus accounting for its presence in the sample, and that they did not consider 2 per cent. an excessive amount; they purchased the ingredients in the open market and carefully sieved and ground them without any addition whatever.

The Public Analyst in a letter enclosed with his certificate states that at the present time, ground cinnamon chips which are imported into this country frequently contain an excess of sand, etc., owing to the careless manner in which they are handled abroad. Later, the Analyst confirmed his certificate verbally to Inspector Crossthwaite with a further remark that he had known of a 6 per cent. of sand, etc., and agrees that there is a difficulty of getting rid of the sand in its entirety; he had examined a quantity of chips at a manufacturer's and could not visibly detect the sand, but on the chips being washed, a deposit of sand resulted.

8. Lime Juice Cordial.

One sample informally taken contained the foreign ingredient of 150 parts of salicylic acid per million parts of the sample. The Medical Officer of Health drew the attention of the retailer to this fact and received a reply that the contents of the few bottles in stock were made by the makers before the Preservative Order came into force. They had been now withdrawn from stock and returned to the makers.

9. Sausage.

Two formal and two informal samples were taken; one formal was 4 per cent. deficient in meat and the other 3 per cent; of the two informals one was genuine and contained 56 per cent. of meat and the other contained 75 per cent. of meat and 100 parts of sulphur dioxide per million.

10. Ham.

Three informal samples were taken, one of which contained 10 parts per million of formaldehyde, probably due to curing. Two samples were genuine.

11. Bacon.

Three informal samples were taken, one was genuine, one contained a slight trace of formaldehyde due to curing, and one contained seven parts per million of formaldehyde from the same cause.

12. Tinned Tomatoes.

One informal sample was taken and contained 190 parts per million of tin in the sample.

13. Dusting Powder for Meat.

One informal sample was taken and contained 81 per cent. boracic acid and 19 per cent. of partially dehydrated borax.

14. Additional Informal Samples (214).

No adulteration detected.

Ice Cream (2).
Margarine (8).
Lard (4).
Cheese (2).
Butter (12).
Cream (3).
Tinned cream (4).
Tinned milk (4).
Dried peas (2).
Arrowroot (2).
Pickles (2).
Pepper (4).
Ground almonds (1).
Ground ginger (1).
Tinned fruits (3).
Currants (2).
Sultanas (1).
Raisins (1).
Candied peel (1).
Dates (1).
Dried fruits (4).
Ground rice (1).
Bottled fruit (1).
Sago (1).
Desiccated cocoa-nut (1).
Quorn trifle (1).
Fruit sauce (1).
Honey (1).
Bread (5).
Plum pudding (1).
Mincemeat (2).
Marmalade (1).
Jam (8).
Sugar (8).

Tea (7).
Coffee (7).
Cocoa (5).
Cocoa and milk powder (1).
Mustard mixture (2).
Port wine (4).
Sherry (4).
Beer (1).
Potted shrimps (1).
Flour (3).
Self-raising flour (2).
Dripping (2).
Beef suet with rice flour (2).
Barley (2).
Rice (2).
Sweets and chocolates (6).
Custard powder (3).
Oatmeal (1).
Ginger cakes (1).
Tinned sardines (1).
Sauce (2).
Cornflour (3).
Mock turtle soup (1).
Lemon squash (1).
Sponge cake (2).
Swiss roll (1).
Vinegar (2).
Gravy browning (2).
Lemonade (1).
Brawn (1).
Seidlitz powders (1).
Compound liquorice powder (2).
Tartaric acid (1).
Soda bi-carbonate (1).

Borax (1).
Boracic powder (1).
Boracic ointment (1).
Camphorated oil (1).
Cream of tartar (1).
Glycerine (2).
Cascara sagrada (1).
Epsom salts (1)
Baking powder (3).
Aspirin tablets (3).
Quinine (1).
Phospherine (1).
Olive oil (1).
Composition powder (1).
Sulphur tablets (1).
Sulphur ointment (1).
Zinc ointment (1).
Gregory powder (1).
Vaseline (1).
Effervescent salts (1).
Carbonate of magnesia (1).
Cod Liver Oil Emulsion (1).
Parrishes Chemical Food (1)
Virol (1).
Ovaltine (1).
Lactogen (1).
Trufood (1).
Ambrosia (1).
Glaxo (1).
Cow and Gate (1).
Non-intoxicant wines (3).
Syrup (1).
Treacle (1).

E. FERTILISERS AND FEEDING STUFFS ACT, 1926.

This is an Act dealing with the nature, substance or quality of all articles sold as a fertiliser of the soil or a feeding stuff for animals and poultry.

The Act is divided into five parts, viz. :—

Civil liabilities.
Criminal liabilities.
Administrative provisions, sampling and analysis.
Legal proceedings.
General.

1. Obligation to furnish Statutory Statements.

The first part makes it the duty of the seller of any article to give the purchaser a Statutory statement containing the following particulars :— Name of article, the nature, substance and quality and ingredients in certain instances.

2. Warranties.

The Statutory statement has the effect of a written warranty.

3. Right of Purchaser to have article sampled and analysed.

The purchaser of any article, on payment of a fee (if any), is entitled to have a sample of an article taken by an Official Sampler in a prescribed manner and analysed by the Agricultural Analyst, and to receive a copy of the Analyst's certificate.

The second part deals with the marking of articles prepared for consignment, consignments ex ship or quay, sales of small quantities, deleterious ingredients in feeding stuffs, penalties, inspection of registers and Statutory statements, and relief from liability in certain cases.

The third part forms the administrative provisions, sampling and analysis sections, such as enforcement of Act by Councils, power of entry and sampling, provisions as to analysis of samples, tampering with samples, obstruction of Inspectors, prohibition against disclosures, financial provisions relating to Councils, and returns of results of analysis.

The fourth part deals with legal proceedings as penalties for offences, restrictions on taking proceedings, general provisions as to legal proceedings and evidence of certificate of analysis.

The fifth part is general and deals with regulations, exemptions, meaning of certain expressions, interpretation, etc.

The Act is supplemented by the Statutory Rules and Orders, 1928, No. 421. These rules and orders set out the manner of marking particulars on the labels of parcels; the limits of variation allowed either over or under the amount stated in the Statutory Statement of Fertilisers; the amount of nitrogen, soluble phosphoric acid, insoluble phosphoric acid and potash; and in feeding stuffs the amount of oil albuminoids (protein), fibre, phosphoric acid, salt and sugar. Sections 3 to 10 of the Rules and Orders deal with the manner of taking samples and the duties of the Official Sampler. Sections 11 to 15 concern the measures relating to the work of the Agricultural Analyst.

The Act became operative on the 1st July, 1928, and the officers appointed to carry out its provisions are:—

W. H. Roberts, M.Sc., F.I.C., of Liverpool, as the Agricultural Analyst.

E. L. Crossthwaite, as the Inspector and Official Sampler.

From the commencement of the Act to the 31st December, 1928, two samples of fertilisers and 24 samples of feeding stuffs were obtained in an informal manner by the Official Sampler and analysed by the Agricultural Analyst whose report on same is appended, and copies of which have been sent to the Ministry in accordance with the regulations of the Act.

In regard to the two fertilisers, one (basic slag) was correct in the terms of the statutory statement, the second (ground limestone) no statutory statement was furnished as required by the Act.

In respect of the 24 feeding stuffs, 13 were in accordance with the statutory statement, five not in accordance with the statutory statement, and six no statutory statement was furnished. Of the five not in accordance, one was over and four were below the limit of variation.

In each instance the offence was brought to the notice of the seller who in turn has taken up the subject with the manufacturers.

APPENDIX
TO
SECTION IV.

TABLE IVA.

Weight	Rabbits, Game. Poultry,			Fruit and Vegetables.			Wet Fish.			Dry Fish.			Shell Fish.			Totals.		
	T.	C.	Q.	T.	C.	Q.	T.	C.	Q.	T.	C.	Q.	T.	C.	Q.	T.	C.	Q.
Examined	35	9	2	0	12	1	3183	15	1	276	0	2	84	10	2	3580	8	0
Condemned	0	5	1	0	12	1	1	9	1	0	4	1	1	4	2	3	15	2

TABLE IVB.

Number of Animals Slaughtered and Inspected with increase or decrease as compared with 1927.

	Cattle		Sheep		Pigs		Calves	
	Killed	Inspd.	Killed	Inspd.	Killed	Inspd.	Killed	Inspd.
Public Abattoir ...	3953 *–404*	3980 *–494*	26846 *+2813*	26898 *+2617*	3257 *+ 818*	4216 *+ 932*	1396 *+511*	1056 *+147*
Private Slaughter-houses	3336 *+176*	3377 *+217*	20286 *+410*	15758 *–1007*	3881 *+1973*	9092 *+2104*	471 *–71*	485 *– 57*
Total Increase or Decrease	*–228*	*–277*	*+3223*	*+1610*	*+2791*	*+3036*	*+440*	*+ 90*

TABLE IVC.

	Veterinary Officer	Meat Inspector
Visits to Public Slaughterhouses	241	317
Visits to Private Slaughterhouses	1714	323
Visits to Butchers' Shops and other premises	679	405

TABLE IVd.

Weight of Meat condemned as unfit for human consumption at the Public Abattoirs, Private Slaughterhouses and Dock Slaughterhouses.

	Whole Carcases	Part Carcases	Offal	Total	Increase or Decrease
	lbs.	lbs.	lbs.	lbs.	lbs.
Cattle ...	201699	24457	76099	302255	*–22602*
Sheep ...	6991	140	5444	12575	*+ 3684*
Pigs ...	11488	1460	19471	32419	*+12469*
Calves ...	5645	107	233	5985	*– 1478*
				353234	*– 7927*

TABLE IVe.

Number of whole carcases and offals condemned as unfit for food on account of Tuberculosis and other conditions.

	Tuberculosis.				Other Conditions.			
	Cattle	Sheep	Pigs	Calves	Cattle	Sheep	Pigs	Calves
Whole Carcases.	309	...	38	7	154	182	46	152
Head	393	...	714	2	31	1	9	1
Lungs	1946	...	717	12	193	17	139	5
Liver	365	...	638	10	1694	451	326	4
Heart	191	...	654	12	39	16	126	5
Spleen	184	...	49	5	20	...	1	...
Kidneys	334	...	197	8	98	2	34	4
Udder	164	...	...	...	667	...	15	...
Stomach	94	...	2	...	19	...	2	...
Skirts	239	...	...	1	21	...	...	...
Mesentery	374	...	206	...	39	4	4	...
Intestines	67	...	11	...	32	4	3	...

TABLE IVF.

Causes of Condemnation in detail.

The weight (lbs.) of meat condemned, the cause of condemnation, and the class of animal.

Disease	Cattle	Sheep	Pigs	Calves
Tuberculosis	198393	...	24332	741
Distomatosis	22301	4466	...	3
Mammitis (Septic)	4960	45	...	...
Mastitis (Non-septic)	1984	...	20	...
Fevered (incl. Physicked) ...	11316	40	286	330
Metritis (Septic)	3970	105	...	...
Actinomycosis	832	...	...	...
Parasitic Cysts (inc. Echinococcus Veterinorum and Cyst Cellulosæ	3008	484	504	...
Dropsy and Emaciation	27867	3522	1505	230
Cirrhosis of Liver	908	12	730	6
Abscess	1210	31	228	14
Fatty Degeneration	375	53	...	...
Angioma of Liver	847	...	...	...
Pyæmia	450	...	180	330
Septicæmia	1400	...	320	...
Pneumonia (Septic)	1750	...	...	80
Pericarditis (Septic)	850	...	...	...
Peritonitis (Septic)	2450	...	180	...
,, (Non-septic)	1318	15	257	40
Pneumonia, Pleurisy and Pericarditis	4421	111	478	33
Emphysema	84	...	...	...
Nephritis	63	...	16	9
Piroplasmosis	550	...	...	...
Congestion	999	156	42	...
Malignant Neoplasms	...	95	...	...
Johnès Disease	399	...	...	...
Asphyxia	1000	...	565	...
Necrosis	...	...	108	...
Black Quarter	300	...	...	...
Bruising and Fractures	5705	330	633	157
Decomposition (inc. Bone Taint)	1215	818	521	392
Moribund	...	1940	415	250
Immaturity	...	12	...	3330
Jaundice	...	...	966	...
Arthritis	1330	35	14	40
Acute Swine Erysipelas	...	...	110	...
Anæmia	...	305	...	...
Contamination	...	...	9	...
Totals (lbs.)	302255	12575	32419	5985

TABLE IVg.

Number of whole carcases condemned for the diseases stated :—

Disease	Cattle	Sheep	Pigs	Calves
Tuberculosis	309	...	38	7
Dropsy and Emaciation ...	79	100	15	6
Malignant Neoplasms	...	2	...	...
Septic Mammitis	9	1	...	...
Septic Metritis	8	2	...	...
Decomposition	1	15	3	5
Peritonitis	1	...	3	1
Septic Pericarditis	1	...	...	...
Septicæmia	3	...	1	...
Pyæmia	4	...	...	5
Odour and Physic	2	...	...	...
Pneumonia and Pleurisy	4	...	...	...
,, Septic	5	1	1	2
Piroplasmosis	1	...	...	...
Bruising and Fractures	1	2	1	1
Jaundice	...	...	10	...
Asphyxia	2	...	2	...
Rickets	...	...	3	...
Septic Peritonitis	6	1	1	...
Johnés Disease	2	...	...	...
Moribund	...	46	4	5
Immaturity	...	1	...	123
Black Quarter	1	...	...	...
Fevered	24	1	...	3
Swine Erysipelas	...	...	2	...
Anæmia	...	10	...	...
Arthritis	...	...	...	1
Totals	463	182	84	159

TABLE IVh.

Number of Animals inspected at Cattle Market and Saleyards.

	Cattle	Sheep	Pigs	Calves	Horses
1928	38563	105335	37052	11160	1786
1927	39042	123121	30007	11505	1730
1926	31937	85683	16095	11486	1479
Other Premises.					
1928	574	......	39	......	28
1927	390	40	17	......	42
1926	626	......	......	......	37
Totals					
1928	39137	105335	37091	11160	1814
1927	39432	123521	30024	11505	1772
1926	32563	85683	16095	11486	1516
Increase or decrease on 1927	−295*	−18186*	+7067	−345	+42

*Decrease due largely to Foot and Mouth Disease outbreaks causing the Cattle Market to be under control from January 1st to February 14th, and again from July 30th to August 31st.

TABLE IVI.

Animals dealt with under the Tuberculosis (in Animals) Order, 1925.

Tubercular Animals.	No.	Giving T.B. Milk.	Suffering from		Chronic Cough and showing definite signs of T-B.	Not affected.
			T.B. Udder	T.B. Emaciation.		
Sent in by Local Authorities	37	6	24	2	5	...
Removed from Cattle Mart	14	...	7	...	7	...
Reported by Dairy Farmers or discovered during inspection of Cattle	3	...	...	...	1	2

TABLE IVJ.

Importation of Live Stock from Ireland.

	Cattle	Sheep	Pigs	Asses	Goats
1928	19399 (9)	31405 (77)	...	...	3
1927	16594 (8)	28475 (212)	34	31	1
1926	18934 (23)	30547 (578)	327 (2)	...	...
1925	18726 (9)	28780 (307)	107 (2)	3	1

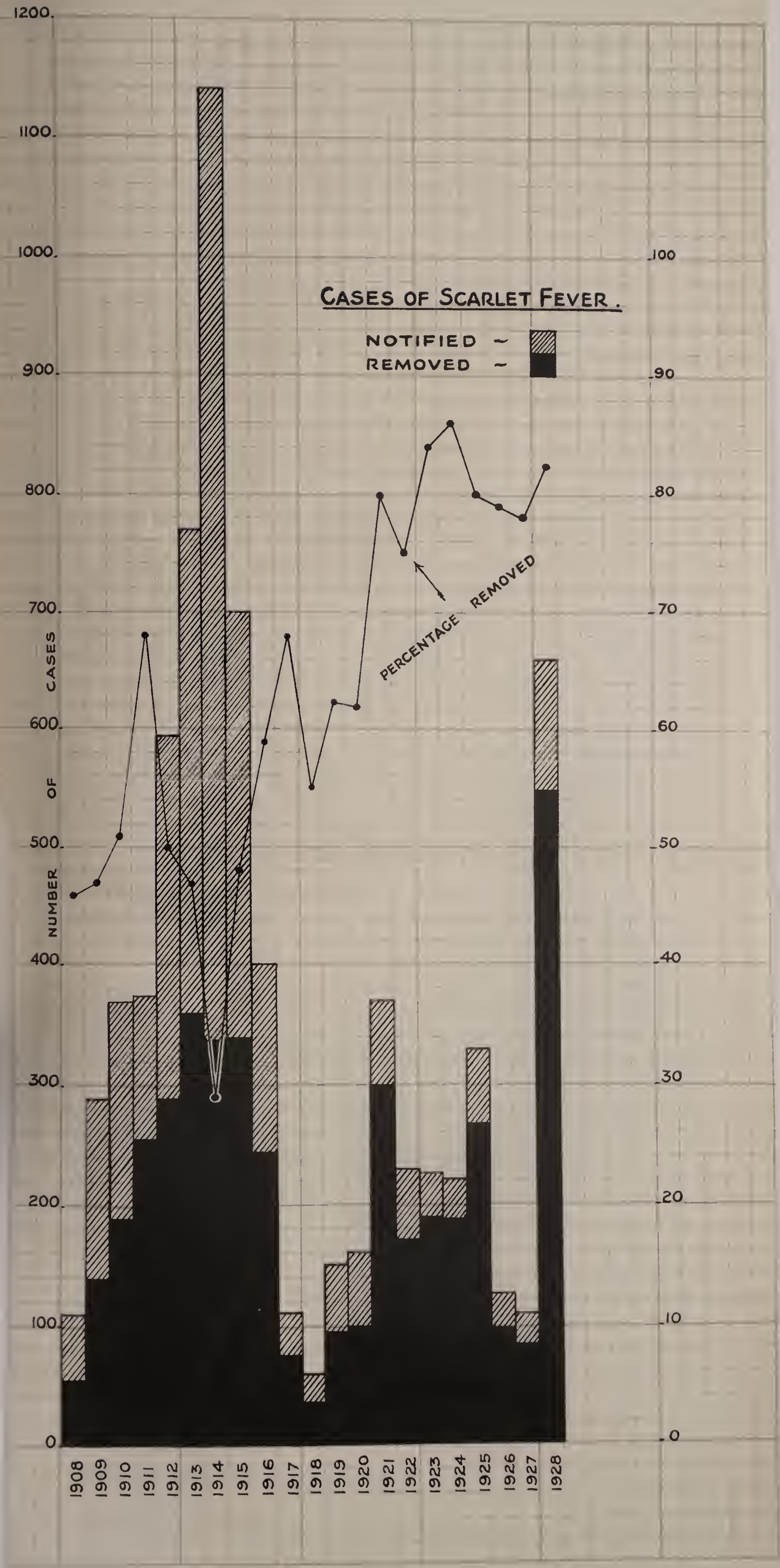
The figures in brackets represent the number slaughtered for emergency reasons.

TABLE IVk.

Food and Drugs (Adulteration) Act, 1928.

Tabular Statement of Samples among which Adulteration was detected.
131 Samples; 26 Adulterated.

Article.	Number analysed	Number adulterated	Formal	Informal
Milk	81	2	5	76
Whiskey	12	4	2	10
Rum	10	2	...	10
Gin	1	1	...	1
Brandy	5	1	...	5
Rice	1	1	...	1
Ground Rice	1	1	...	1
Ammoniated Quinine Capsules and Tablets	3	3	...	3
Currant Cake	2	2	1	1
Mixed Spice	2	2	...	2
Lime Juice Cordial ...	1	1	...	1
Sausage	4	1	2	2
Ham	3	1	...	3
Bacon	3	2	...	3
Tinned Tomatoes ...	1	1	...	1
Dusting Powder for Meat	1	1	...	1
Total	131	26	10	121


CASES OF SCARLET FEVER.
NOTIFIED ~ ▨
REMOVED ~ ■
PERCENTAGE REMOVED
NUMBER OF CASES
1200.
1100.
1000.
900.
800.
700.
600.
500.
400.
300.
200.
100.
0
.100
.90
.80
.70
.60
.50
.40
.30
.20
.10
.0
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928

V.—Prevalence of, and control over, Infectious Diseases.

A.—GENERAL.

In the following paragraphs are discussed the principal infectious diseases, their incidence, their effect upon mortality and the means taken for preventing as far as possible serious outbreaks among the community. Diphtheria has declined from the rather high average number of cases occurring in the years 1925-1927. Scarlet Fever, the marked decline of which has been a feature of recent reports, was present in epidemic form, more cases being brought to our notice than in any year since 1915. Fortunately, the mortality was extremely small. Enteric Fever was notified on five occasions and caused one death. Puerperal Fever and Puerperal Pyrexia were notified on 24 occasions, approximately equal to the number last year. Influenza was not present in epidemic form. Encephalitis Lethargica and Acute Poliomyelitis were notified on five occasions. The number of the notifications bears very little relation to the number of new cases, which, in the early stages, are regarded by relatives as cases of influenza or colds. They appear later in the chronic paralytic stage at the surgeries of private practitioners and hospital out-patient departments. The epidemic of Chicken Pox reported to have begun in the winter of 1927 was maintained until July of 1928.

Puerperal Fever, Puerperal Morbidity and Ophthalmia Neonatorum are dealt with in that section of the report relating to Maternity and Child Welfare.

1. Diphtheria.

	1928	1927	1926	1925	1924
No. of cases notified	158	223	215	237	131
No. of deaths	9	11	8	18	6
Case incidence per 1,000 population.	1.243	1.75	1.73	1.93	1.14
Mortality per 1,000 population ...	0.07	0.087	0.064	0.014	0.05
Morbidity per cent. of cases notified	5.70	4.93	3.72	7.59	4.58

This disease, which has been rather excessively present in the years 1925-1927, was not nearly so prevalent last year. There were nine deaths, eight of which took place in the Isolation Hospital. More than half the cases occurred in January, February and March. Half the cases occurred in school children aged 5—10 years, although half the children who died were under school age. 78.48 per cent. of the cases notified were removed to hospital, a proportion which has been maintained for several years past. Park Ward with 24 cases, and Ashton Ward with six, illustrate the unevenness with which the disease was distributed. The free supply of Diphtheria Antitoxin to medical practitioners from the Health Office, The Royal Infirmary and the Police Stations was continued.

Issues of Diphtheria Antitoxin.

	Size of dose.		
	2000 units	4000 units	8000 units
Health Office, Tithebarn Street ...	...	53	56
Preston Royal Infirmary	...	28	...
Central Police Station	...	30	...
Strand Road Police Station	...	...	...
New Hall Lane Police Station ...	...	24	...
Isolation Hospital	24	66	108
Total doses	24	201	164

2. Scarlet Fever.

No. of cases notified	662	109	124	330	219
No. of deaths	3	—	1	9	2
Case incidence per 1,000 population.	5.208	0.80	1.00	2.68	1.77
Mortality per 1,000 population ...	0.02	—	0.008	0.073	0.016
Morbidity per cent. of cases notified	0.45	—	0.81	2.73	0.90

A smart epidemic of Scarlet Fever began in January and ended abruptly at the end of the year. June and October-November were the two periods when the number of cases was at its height. The disease spread from one district to another until the whole town had become equally affected. There was, however, a numerical preponderance in St. John's, Maudland and Deepdale Wards, whilst Ashton and Avenham escaped comparatively lightly. A very difficult feature has been the persistence with which certain schools, both elementary and secondary, have remained infective for prolonged periods. This is due to the existence of undiagnosed and concealed cases, which were met by repeated examination of the children at the affected schools and the home visiting of absentees. Nearly one-third of the cases were between five and ten years of age, and over one-quarter between ten and fifteen, or more than one-half were of school age; 82.48 per cent. were removed to hospital, as compared with 78 per cent. in 1927. As detailed in the report on the Isolation Hospital, the hospital treatment of the cases proved to be a very difficult tax and, at some periods of the epidemic, the spread of the disease was favoured by the home treatment of cases under bad circumstances as regards isolation. 611 cases were primary in affected houses, 25 were second cases, nine were third cases, one was a fourth case, and 16 were hospital return cases.

3. Enteric Fever.

No. of cases notified	5	2	8	3	18
No. of deaths	1	1	—	1	1
Case incidence per 1,000 population.	0.04	0.016	0.064	0.024	0.14
Mortality per 1,000 population ...	0.01	0.008	—	0.008	0.008
Morbidity per cent. of cases notified	20.00	50.00	—	33.3	5.50

Six cases were notified by medical practitioners. In one instance the notification of the case as suffering from Enteric Fever was withdrawn. Two cases presented the symptoms, both clinical and bacteriological, of the disease; one of these died in the Royal Infirmary and one belonged to Kirkham Rural District. The remaining three were found on treatment at the Isolation Hospital to be cases of food poisoning, Pneumonia and Cancer, respectively.

4. Influenza.

	No. of deaths caused by		
	Influenza	Bronchitis	Pneumonia
1916	37	150	173
1917	31	160	176
1918	391	151	210
1919	166	183	168
1920	37	154	153
1921	32	118	139
1922	85	151	151
1923	54	161	189
1924	89	160	175
1925	59	143	175
Average	98.1	153.1	170.9
1926	37	95	131
1927	102	131	174
1928	40	94	122

1928 was not an Influenza year. Thirteen cases of Influenzal Pneumonia were notified, ten of them in January, February and March. Forty persons died of Influenza.

5. Erysipelas.

Fifty cases were notified, as compared with 40 in 1927. Only five cases were admitted to the Isolation Hospital. There were eight deaths from this disease.

6. Pneumonia.

The notification of this disease (104 notifications, 122 deaths) is very far from complete. Medical practitioners who are scrupulous in the observation of their duties as regards Enteric, Diphtheria and Scarlet Fever, fail largely over diseases added lately to the list. Perhaps their motive is the fact that the local authority is not in a position to do for the patient what is done with the diseases mentioned or, maybe, fear of their doing so is the stumbling block. It is a misfortune that such should be the case as the authority loses its opportunity of providing nursing and other assistance which might, in some instances, save life.

7. Encephalitis Lethargica.

There were three new cases notified in the year and one death registered. The persistence of an epidemic of cases of Encephalitis Lethargica, small in number but deadly in its immediate and remote effects, has moved many local authorities to enquire as to what is their position and duty to the sufferers. The majority of authorities, by reason of their financial limitations, can directly do nothing beyond the Isolation Hospital treatment of cases in the acute stages. Chronic cases are either retained at home, with great trouble, expense and anxiety to their relatives, or, in the case of destitute persons, come into the care of the Poor Law Guardians. In some instances the mental degeneration is so great as to induce aberrations of conduct sufficient to warrant certification under the Lunacy Acts. In others, the disease has induced loss of memory, slow cerebration and emotional states, fits of weeping, hysteria and melancholy or alterations of character and habit such as lying, theft, cruelty, sexual perversities and inversion of the sleep rhythm. These altered mental states are nearly always accompanied by more or less profound physical alterations, the most prominent feature of which is a rigidity or spasm of the muscles which render movement slow, difficult and uncertain. The muscles of the face in particular become fixed and mask-like, so that tears flow and saliva dribbles. In many cases the patient is unable to lift the head and remains permanently in an attitude of submission. Speech becomes slow, thick and hesitant. In perhaps the worst kind of case the physical alterations outlined above exist in a marked degree without any ascertainable alteration in the mental capacity. These latter, palpably realising their deplorable condition, excite the deepest pity. Ordinary medical treatment, whether at the hands of private practitioners or of specialists in general hospitals, seems to be of little avail, although some institutions record alleviations obtained by massage, electricity and re-education of the rigid musculature. Recently the Manchester City Council have circularised neighbouring County Boroughs enquiring what support they might hope for in establishing a scheme for prolonged nursing home treatment of cases under conditions in which accumulated material would enable institutional life to be organised on a sufficiently large scale as to warrant the provision of highly specialised treatment, without which any progress is impossible. To this proposal your committee gave their promise of co-operation. A recent enquiry carried out in the borough shows that of 40 cases which are known to have occurred in the six years, 1923-1928, 11 have died, ten are known to have completely recovered and 19 are of the types described. Of these, one is in an asylum, six are in the Poor Law Institution, one is suitable for certification under the Lunacy Acts, two are enabled to do a little light work and nine, all women, should receive institutional care.

8. Acute Anterior Poliomyelitis.

This disease, which is an infection of the spinal cord and somewhat similar to Encephalitis Lethargica in its nature, has as after effects a paralysis of one or more limbs. It is a disease of childhood and the lack of growth of the affected limb is made apparent as time goes on. The value of early recognition and notification of this condition lies in the very great amount of benefit, including limiting the residual paralysis, which can be obtained by early treatment. Late cases gravitate to our hospital and orthopædic centres, when their treatment is more difficult and not so productive of satisfactory results. Two cases were notified during the year, aged one year old; one death occurred.

9. Infective Enteritis

Five notifications were received, whereas there were nine deaths under one year of age. The distinction between an acute diarrhœa due to some error in dieting and the true infective conditions which a few years ago was the principal cause of mortality in young children, is difficult to make. The latter condition is frequently so rapidly fatal as to leave no time for useful notification. It is doubtful whether there was any true Infective Enteritis in the borough last year.

10. Chicken Pox.

The epidemic which began in October, 1927, reached its peak in January, 1928, followed by a decline until May and June, when a second peak was reached, this was followed by a rapid decline so that only sporadic cases were notified in August and the following months. One-half of the cases were aged 5—10 years. One child was removed to hospital. The disease caused no mortality.

11. Measles.

Following the very large outbreak in 1927 with over 3,000 cases, there were only 58 cases notified. The cases were sporadic as regards place and time distribution. Two cases were removed to hospital and one death occurred at home.

12. Small Pox.

Illustrating the difficulty experienced in dealing with Small Pox as it affects a fluid or vagrant population as compared with the disease as it affects the majority of the population who are fixed as regards residence and work, the department on five separate occasions received information from outside districts that Small Pox had occurred and that contacts were returning to Preston. In one case the contact was a patient at a skin hospital with a fixed address easily traced. In the remainder, one of which included 30 contacts of the tramp class, repeated watchings of common lodging houses, involving over 280 visits, failed to find a single contact with the same name as the one given at the place where contact was made.

13. Whooping Cough.

Two hundred and forty-five cases of Whooping Cough were brought to the notice of the department by head teachers and parents or discovered by the School Nurses and Health Visitors. This figure compares with 150 cases in 1927. Fifteen deaths were registered, ten of which were of children under two years of age. The epidemic began in October and continues at the time of writing. Two-thirds of the cases occurred in Ashton and Maudland Wards. Only one case could be removed to hospital. The hospital treatment of selected cases such as those suffering from an associated Pneumonia or living under bad social conditions is of very great importance and will be undertaken as soon as accommodation becomes available.

B.—ISOLATION HOSPITAL.

The Hospital is a modern Institution which was opened in 1908. It consists of an administrative block, four ward blocks, laundry and other necessary premises.

The Ward Blocks consist of two main wards and two side wards each. The accommodation is for 60 beds.

The Hospital stands on a favourable site on the southern slope of the steep valley of the brook which forms the boundary between the Borough and the Fulwood Urban District Council. Although much building has taken place in recent years on the Holme Slack Housing Estate, the Hospital is secured in reasonable air space and isolation by its proximity to Moor Park and land unsuitable for building purposes to the north and east.

During the year, 702 cases were admitted, compared with 465, 360, 510 and 374 in previous years.

This number, far exceeding the number admitted in any year of the history of the Hospital, has taxed the resources of staff and accommodation to the utmost, so much so that towards the end of the year, it was found impossible to remove cases as soon as desired, with the consequence that second and even third cases began to occur in households with a rather alarming frequency.

The proposals now under discussion by your Committee will allow of the opening of the fourth block, which up to now has been impossible on account of the limitation of the staff accommodation in the administrative block.

1. Cost.

The following figures are taken from the Borough Treasurer's Abstract and Annual Reports. They relate to periods ending on March 31st, and therefore do not reflect the cost in the calendar year upon which this report is based.

	Expenditure			Income		
	£	s.	d.	£	s.	d.
1923-24	6974	16	0	94	11	2
1924-25	7424	4	1	323	2	2
1925-26	8602	0	9	183	17	5
1926-27	8374	0	0	577	0	0
1927-28	8064	0	0	940	16	4

I append herewith notes on the diseases treated. The heavy demands made by Scarlet Fever compelled the closing of the Ward devoted to the treatment of ailing infants, which is proving a heavy blow to our Maternity and Child Welfare work. The early resumption of this activity is of pressing importance.

2. Enteric Fever.

Four cases were admitted, compared with one and six in previous years. One case only presented the clinical and bacteriological features of the disease, the other three proving to be cases of Pneumonia, Food Poisoning and Cancer. The last-named died at home some weeks after discharge ; the remainder recovered.

3. Scarlet Fever.

546 Cases were admitted, compared with 85, 98, 266 and 188 in preceding years. They represent 82.48 per cent. of the cases notified, compared with 78, 80 and 81 in previous years. The type of case was mild but shewed a septic type of case towards the end of the year. One child, admitted some weeks after the attack in an advanced state of Bright's Disease, died shortly after admission.

Fifty children remained in Hospital at the end of the year, and the remainder were discharged in good health.

A noteworthy advance in the treatment of Scarlet Fever has been the injection of Anti-Scarlatinal Serum. An extensive use of this agent impresses me with the opinion that its early use cuts short the febrile stage and lessens the liability to contract complications such as Bright's Disease, Discharging Ears and inflammation of the glands of the neck, thus lessening the average length of time spent in the institution, thus increasing the hospital capacity. The average length of stay, 31 days, was six days shorter than in 1927, and is two or three days less than has been experienced in the previous four years. One ought to take into account the fact that many cases were admitted late at the height of the epidemic ; also, the influence exerted by the demand for beds upon the date of discharge cannot be neglected.

Among the admissions, nine failed to produce any evidence of Scarlet Fever either at the time of admission or at the end of a period of isolation (21st day of the disease). One child had an acute skin disease resembling Scarlet Fever in its early stages. One was suffering from Diphtheria, and one had both Diphtheria and Scarlet Fever at the time of admission.

Return cases numbered 16, they represent 3.02 per cent. of the 530 primary cases, compared with 1.9 per cent. for the period 1921-1927 inclusive.

4. Diphtheria.

124 Cases were admitted, compared with 198, 177 and 198 in previous years. The admissions represent 78.48 per cent. of the number notified. There were eight deaths ; from Toxaemia, four cases on the 7th, 6th, 5th and 2nd day after admission respectively ; from Laryngeal obstruction, tracheotomy and subsequent pulmonary and cardiac failure, four cases, 7th, 2nd and 1st day (2 cases) respectively after admission. Included in the latter group is a case treated by tracheotomy in 1927 which died in 1928. Only one case treated by tracheotomy recovered. A mortality of 6.4, 6.6, 3.4 and 8.1 per cent. during the last four years illustrates the high fatality rate among children in which the disease is treated late in its course. Especially so is this the case where obstruction to breathing is allowed to develop to such a degree as to render tracheotomy an urgent necessity. In the last four years there have been 30 such operations, with only 14 recoveries. On admission, nine cases proved to be suffering from follicular tonsilitis (a non-diphtheric inflammatory disease of the tonsils). Eleven presented no clinical or bacteriological signs of illness, and can probably be included in the first group. Two were suffering from Scarlet Fever (in the pre-rash stage), one was suffering from Diphtheria and Scarlet Fever and two were suffering from Pneumonia.

Two children were infected with Scarlet Fever while under treatment.

5. Measles.

1928 was a non-epidemic year and the occasion for removal seldom arose. Two cases only were admitted, both recovered. The numbers treated in previous years have been 66, 4, 13 and 31 respectively.

6. Erysipelas.

Five cases were admitted, as compared with 17 last year. Owing to pressure on the available accommodation, it was found impossible on two occasions to remove cases arising in the Preston Poor Law Institution. This gave rise to an unfavourable comment which received a good deal of publicity.

My chief reason for asking your Committee's consent to the treatment of this disease at the Isolation Hospital was the fact that it requires skilled nursing and attendance, such as can be obtained only rarely in working-class homes. Your permission to remove cases of Pneumonia was obtained on similar grounds. Erysipelas is scarcely at all infectious and only contagious under certain circumstances so that although it may not be treated in a surgical ward there can be very little objection to its treatment in the medical wards of an institution.

7. Pneumonia.

The one case remaining in Hospital at the end of 1927 recovered. None were admitted during 1928.

8. Puerperal Fever.

Nine cases were admitted, compared with 11, 11, 5 and 5 in previous years. There was one death. The results of treatment are as last year, very good, and are regarded with pride by the staff. Only those brought into contact with this class of case can appreciate the continuous strain and anxiety imposed upon the staff. The results are our guerdon. Two of the women were accompanied by their infants, a desirable practice and one to be encouraged whenever possible.

9. Encephalitis Lethargica.

Two children admitted in 1927 and found to be suffering from teething were discharged. One case was admitted and found to be suffering from Tuberculous Meningitis, of which she died.

10. Other Diseases.

Five infants remained over from 1927. Eleven were admitted. This compares with 66 last year. There were three deaths, one from premature birth, an infant admitted for Ophthalmia Neonatorum, and one each from Rickets and Marasmus.

The cases consisted of :—

Chicken Pox	1
Rickets	3
Ophthalmia Neonatorum ...	4
Whooping Cough	1
Accompanying Mother	2

C.—TUBERCULOSIS.

Dr. James Walker, M.B., Ch.B., Tuberculosis Officer.

1. Incidence and Mortality of the Disease.

Tuberculosis is a disease which is slowly but surely being conquered. This fact cannot be more strikingly illustrated than by simply quoting the figures which reveal the remarkable diminution in the mortality of the disease during the last decade.

In 1918 there occurred, in England and Wales, 58,073 deaths from tuberculosis (all forms). In 1927 (the figures for 1928 are not yet available) this number had fallen to 38,173. Taking into account the increase in population these figures may be expressed as a rate per 1,000 of the population. Thus the rate in 1918 was 1.52 deaths per 1,000 of the population, while in 1927 it was .96 per 1,000.

In Preston the deaths have fallen from 176 to 122 during the corresponding period. These figures give rates of 1.66 and .96 per 1,000 respectively —figures which coincide very closely with those of the country as a whole.

If figures for decades previous to 1918 were quoted the same steady fall would be observed but the above figures are interesting as shewing what has been achieved since the war period.

This steadily progressive fall is not merely of local distribution. It is taking place more or less uniformly in the country as a whole and, indeed, throughout the civilised world and bears eloquent testimony to the success of the efforts that are being made to overcome this malady.

Many factors have contributed to this decline in the mortality from tuberculosis. Chief among them are :—

(1) The systematic and organised attack being carried out through the anti-tuberculosis schemes of local authorities under the guidance and control of the Ministry of Health.

(2) Improved methods of diagnosis, leading to earlier detection of cases.

(3) Better housing conditions (though there is still a long way to go in this direction) and improved standard of life among the working classes.

(4) Increased facilities for the segregation of infectious cases and the readier response of the public to accept such segregation. This shews that the general public are becoming more cognisant of the dangers of the disease and of the means to combat them.

(5) Improvement in the milk supply. In this connection it is worthy of note that the fall in the mortality from non-pulmonary tuberculosis (to a

large extent a milk-borne infection in childhood) has been more impressive than in the pulmonary form of the disease. From 1918 to 1927 the deaths in England and Wales from non-pulmonary tuberculosis have fallen from 12,735 to 7,107—that is to say, the mortality has been nearly halved.

In the year under review the total number of cases of tuberculosis (all forms) notified in Preston was 253. This shews an increase on the actual cases notified in the previous year, when the figure was 221. This apparent increase is, to a great extent, accounted for by the fact that cases are now being more readily notified. There is no doubt that the notification of this disease by general practitioners has become much more efficient during recent years and the Tuberculosis Department is now getting hold of a much greater proportion of the early cases than was formerly the case.

The above figure gives a notification rate of 1.99 per 1,000 of the population. Of this rate the pulmonary form is responsible for 1.42 and non-pulmonary form for .57 per 1,000.

The age and sex distribution of the notified cases (primary notifications on Forms A and B), the relative incidence in the different wards of the Borough and the occupations of the notified cases are shewn in Tables VJ, VK and VL, respectively .

During 1928 the number of deaths registered in Preston as due to tuberculosis (all forms) was 122. This is the lowest number yet recorded, being one less than in the previous year when 123 deaths were registered. The ratio of the non-notified deaths to the total deaths from tuberculosis is as one to four and one-third.

Of the total deaths from tuberculosis 92 were due to pulmonary form (eight less than in the previous year) and 30 were caused by other forms of the disease (seven more than in the previous year). The death rate from the disease (all forms) was .96 per 1,000 of the population. The pulmonary form was responsible for a death rate of .72 per 1,000, while other forms of the disease caused a rate of .24 per 1,000.

The above rate is again the lowest recorded for the Borough and for the second year in succession the total death rate from this disease is less than one per 1,000 of the population.

The age and sex distribution of these deaths and the death rate in each ward respectively are shewn in Tables VM and VO.

2. Work done during the Year.

The following is a summary of the work carried out during the year under the Dispensary organisation :—

(a) At the Dispensary.

During the year 420 new patients were examined by the Tuberculosis Officer, either at the Dispensary or at their own homes.

Old patients made 1,231 attendances at the Dispensary for treatment, reports, or observation purposes.

Of the new patients, 212 were diagnosed as suffering definitely from tuberculosis in some form or other, 155 from pulmonary and 57 from non-pulmonary tuberculosis.

The pulmonary cases were classified as follows :—

T.B. –	110
T.B. + Group 1	13
T.B. + Group 2	24
T.B. + Group 3	8

The non-pulmonary cases were classified as follows :—

Bones and Joints	15
Abdominal	8
Peripheral Glands	31
Other Organs	3
	57

The nurses (two in number) have made 201 visits to the homes of new patients and 2,515 re-visits to those of old patients.

The number of persons in infected houses is shewn in Table Vn. The figures above the heavy line shew the number of families where there were more than two persons per room—they number 19 families, consisting of 138 persons.

(b) The " Chestnuts " Sanatorium.

During the year under review the only important development in the Corporation's scheme for dealing with tuberculosis has been the provision of a new building at the " Chestnuts " Sanatorium for the purpose of providing occupational therapy for suitable patients.

It had long been felt that something more than the ordinary recreation provided at sanatoria was necessary to the interests of the patients to overcome to some extent the monotony associated with life in an institution of this type.

With this end in view the Committee decided to recommend a scheme which comprised the erection of a separate pavilion containing separate workshops for men and women patients. The approval of the Ministry of Health was obtained and the building was completed towards the end of the year.

It is proposed, for the time being at any rate, to limit the activities to practical instruction in carpentry and joinery for the men and in sewing for the women. It is expected that the scheme will come into operation early in the coming year. The work will be purely voluntary and suitable patients will be selected by the Medical Officer in charge.

If the scheme meets with a reasonable measure of success a further development may be contemplated later. Previous to the inception of this scheme, Mr. Councillor H. Howarth had very kindly undertaken to deliver a course of weekly addresses to the patients during the winter months. These addresses have been continued during the past Winter and, together with the usual series of entertainments kindly provided by various ladies and gentlemen, have helped considerably to relieve the tedium of the depressing period of the year.

From the point of view of treatment and isolation of infectious cases the institution has continued to discharge its very useful function during the year. It has been pointed out previously that one of the primary objects of this institution is the segregation of highly infectious cases rather than the curative treatment of early cases. Hence any attempt to analyse here the results of treatment would be misleading owing to the nature of a large proportion of the cases admitted.

The figures dealing with the immediate results of treatment are, however, included in Table Vp, which deals with all the institutions collectively to which patients are sent.

(c) Residential Treatment.

The average number of beds available to the Corporation during 1928 for the treatment of all forms of tuberculosis, the extent of residential treatment, and the immediate results of such treatment, are shewn in Tables Vq, Vr and Vs.

D.—WORK DONE IN THE BACTERIOLOGICAL LABORATORY DURING 1928.

The following is the number of specimens examined during the year :—

Specimens of Sputum examined for Tubercle Bacilli ...	388
Throat Swabs examined for Diphtheria Bacilli ...	1,283
Total	1,671

E.—VENEREAL DISEASES.

Medical Officer : Dr. W. H. Pimblett.

The Clinics for the treatment of Venereal Diseases are held at the Preston Royal Infirmary at the times stated below.

The premises were specially built and equipped for the purpose, and are in charge of Dr. W. H. Pimblett, Hon. Physician at the Infirmary. Dr. Pimblett is assisted by one of a rota of medical men at each of the Clinics held for men, and by the Assistant Medical Officer for Maternity and Child Welfare at the Clinic held for women.

The Clinics are held at the following times:—

ARRANGEMENTS AND TIME TABLE.

Clinics—	
Tuesday—Females	4-30 to 7-0 p.m.
Wednesday—Males	4-30 to 7-30 p.m.
Friday—Males	4-30 to 7-0 p.m.
Intermediate Treatment for Gonorrhœa—	
Females—Tuesday	4-30 to 7-0 p.m.
Females—Friday	2-0 to 3-0 p.m.
Males—Every day (except Sunday)—	
Morning	8-30 to 9-30
Evening	5-0 to 7-0

The two tables appended (VT and VU) shew the work in detail in the form required by the Ministry of Health. Briefly the work is summarised here:—

	1926	1927	1928
Total New Cases	572	631	686
Total Attendances at Clinic...	13378	17859	20093
,, ,, Males ...	3507	5020	4971
,, ,, Females...	2330	2969	3115
Intermediate Attendances (included in above)—			
Males	6856	9071	10687
Females	685	799	1320

Dr. W. H. Pimblett reports as follows:—

In the whole of the country last year there was a considerable decline in new cases of syphilis.

From 1917 to 1926 the certified deaths from congenital syphilis in infants under one year of age declined from 2.17 per thousand births to 0.84. Infants with congenital syphilis have become rarities in maternity hospitals.

In gonorrhœa the facts are that, thanks to the education of the public, a larger proportion of all infected cases now attend the clinics. There is also a considerable reduction in the number of cases of ophthalmia neonatorum.

The working of a good and efficient Venereal Diseases Scheme should provide—

(1) Good social hygiene education and advertisement of the facilities for diagnosis and treatment;

(2) Make provision in the centres for getting into touch with and bringing under treatment those who may have infected, or been infected by, patients already attending the centres;

(3) Establish liaison between workers in the Venereal Diseases Centres and those in other branches of the public health service who are likely to meet with cases of venereal disease. This applies particularly to liaison with workers in the Maternity and Child Welfare section;

(4) Should provide particularly for the ante-natal treatment of pregnant women suffering from venereal disease.

APPENDIX
TO
SECTION V.

TABLE Va.

Summary of Zymotic Deaths for 1928 and the preceding ten years.

Year	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	Average for 10 years 1918—1927.
Population	127100	127100	124200	122900	123100	121700	120900	119900	121950	117277	105845	120487.2
No. of Deaths. Enteric ...	1	1	...	1	1	3	2	1	1	2	4	1.6
Small Pox ...	...	...	...	...	..	...	...	...	...	...	...	...
Measles ...	1	43	...	18	21	6	64	...	14	26	2	19.4
Scarlet Fever	3	...	1	9	2	4	2	3	2	2	...	2.5
Whooping Cough	15	18	1	39	4	22	4	29	10	5	35	16.7
Diphtheria ...	9	11	8	18	6	10	9	13	13	19	13	12.0
Diarrhoea ...	20	17	30	28	25	30	27	70	30	43	42	34.2
Totals ...	49	90	40	113	59	75	108	116	70	97	96	86.4
Zymotic Rate	0.39	0.71	0.32	0.92	0.47	0.61	0·89	0.95	0.57	0.82	0.90	0.716

TABLE Vb.—**Cases of Infectious Disease for the Year 1928 classified according to age and sex.**

Notifiable Disease.	Under 1 year		1—2		2—3		3—4		4—5		5—10		10—15		15—20		20—25		25—45		45—65		65 and over		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Diphtheria	2	...	7	1	7	2	4	5	4	8	36	39	7	16	3	5	1	4	4	3	...	...	...	...	75	83
Erysipelas	...	...	...	1	...	...	...	...	...	...	...	2	...	1	...	3	...	1	10	9	11	9	1	2	22	28
Scarlet Fever	2	...	4	2	13	11	20	17	29	29	150	182	62	82	9	19	5	9	6	8	...	3	...	...	300	362
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	1	...	...	1	4
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	4
Pyrexia (Puerperal)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...	17	...	...	...	...	...	21
Ophthalmia Neonatorum	6	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	5
Pulmonary Tuberculosis	...	...	...	1	...	2	...	2	...	...	7	10	6	9	11	8	12	15	39	36	17	5	...	1	92	89
Other Forms of Tuberculosis	2	1	7	1	1	3	1	3	1	1	11	9	3	5	1	7	1	4	9	...	1	...	...	...	38	34
Influenzal Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	1	4	3	...	1	8	5
Primary Pneumonia	3	5	3	3	2	1	5	4	2	2	6	5	1	2	4	3	2	3	26	9	4	3	2	4	60	44
Malaria	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	1	2
Acute Poliomyelitis	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Infective Enteritis	...	3	2	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3
Chicken Pox	13	15	11	8	15	16	28	27	35	45	148	142	7	6	...	5	2	1	1	1	...	...	...	...	260	266
Measles	8	2	...	4	2	1	4	...	1	2	19	11	1	...	1	...	...	2	...	...	...	...	...	...	36	22
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough (not notifiable)	8	9	6	6	8	8	4	5	28	22	66	70	2	2	...	...	...	...	...	1	...	...	...	...	122	123

TABLE Vc.

Cases of Infectious Diseases notified in 1928 and classified according to Ward distribution.

Notifiable Disease.	Total	St. John's.	Avenham.	Christ Church	Ashton.	Maudland.	St. Peter's.	Moorbrook.	Park.	Trinity.	Deepdale.	Ribbleton.	Fishwick.
Diphtheria	158	14	12	17	6	14	16	8	24	11	15	11	10
Erysipelas	50	6	3	2	3	5	6	3	4	7	4	3	4
Scarlet Fever	662	73	33	40	29	95	58	51	67	39	74	54	49
Enteric Fever	5	1	...	...	...	1	1	...	1	...	1	...	...
Puerperal Fever	4	...	...	...	...	2	...	...	1	...	...	1	...
Pyrexia (Puerperal)	21	...	1	2	...	2	1	1	5	4	...	4	1
Ophthalmia Neonatorum	11	2	...	1	1	3	...	1	1	1	...	1	...
Pulmonary Tuberculosis	181	22	6	15	13	7	20	11	20	24	18	14	11
Other Forms of Tuberculosis	72	8	1	5	1	4	5	3	12	9	10	6	8
Influenzal Pneumonia	13	1	...	...	1	2	1	1	...	...	2	3	2
Primary Pneumonia	104	12	9	18	3	9	7	5	10	13	7	9	2
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	3	1	1	...	...	...	..	...	...	...	1	...	...
Acute Poliomyelitis	2	1	...	...	...	...	...	...	1	...	...	...	...
Infective Enteritis	5	...	...	3	...	...	...	...	...	2	...	...	...
Chicken Pox	526	10	15	118	54	96	55	36	54	31	30	20	7
Measles	58	3	3	8	6	7	2	3	7	5	2	6	6
Small Pox	...	..	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough (not notifiable)...	245	21	3	3	70	92	17	4	9	13	10	3	...

TABLE Vd.

Cases of Infectious Diseases notified in 1928 and classified according to month of occurrence.

Notifiable Disease.	TOTAL	January	February	March	April	May	June	July	August	September	October	November	December
Diphtheria	158	24	29	29	13	12	4	8	8	6	3	13	9
Erysipelas	50	7	6	1	3	8	5	2	1	1	7	6	3
Scarlet Fever	662	29	41	56	44	45	84	51	46	56	83	74	53
Enteric Fever	5	2	...	...	...	...	...	...	1	...	...	1	1
Puerperal Fever	4	2	...	...	1	1	...	...	...	...	...	...	...
Pyrexia (Puerperal)	21	2	1	4	4	1	2	...	...	...	3	2	2
Ophthalmia Neonatorum	11	3	1	...	2	1	...	1	...	...	1	...	2
Pulmonary Tuberculosis	181	13	13	19	20	18	16	11	10	15	14	22	10
Other Forms of Tuberculosis	72	3	5	6	8	9	9	9	4	7	6	5	1
Influenzal Pneumonia	13	2	1	5	2	...	...	...	...	1	2	...	...
Primary Pneumonia	104	13	12	16	2	18	5	6	1	8	11	5	7
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	3	...	...	...	...	1	...	1	...	1	...	...	...
Acute Poliomyelitis	2	...	...	1	.	...	...	...	...	...	1	...	...
Infective Enteritis	5	...	...	...	...	1	1	1	...	...	...	2	...
Chicken Pox	526	92	57	19	32	109	110	58	10	10	13	6	10
Measles	58	8	6	9	1	1	5	8	7	3	4	2	4
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough (not notifiable)	245	...	5	2	4	4	1	3	2	8	59	84	73

TABLE Ve.
Isolation Hospital.

Disease for which admitted.	In Hospital Dec, 31, 1927	Admitted		Dis-charged	Death	Remaining Dec. 31, 1928
		No.	Per cent of Cases Notified			
Enteric Fever	...	4	80·00	4	...	...
Scarlet Fever...	16	546	82·48	511	1	50
Diphtheria......	18	124	78·48	132	8	2
Measles	...	2	...	2	...	...
Erysipelas	...	5	10·00	4	1	...
Pneumonia ...	1	...	...	1	...	...
Puerperal Fever	...	9	36·00	8	1	...
Encephalitis Lethargica...	2	1	...	2	1	...
Other Diseases	5	11	...	13	3	...
TOTALS	42	702	...	677	15	52

TABLE Vf.
Length of stay in Hospital of Patients who died or were discharged in 1928 whether admitted in that year or previously.

Disease for which admitted.	No. of Cases Died or Discharged during 1928	Total Days in Hospital	Average length of stay in days	Corresponding Figures for :			
				1927	1926	1925	1924
Enteric Fever	4	140	35·00	17·00	25·33	18·00	19·33
Scarlet Fever	512	15874	31·00	37·05	34·45	33·15	34·60
Diphtheria	140	4816	34·40	16.97	23·50	21·67	25·89
Measles	2	33	16·50	19·68	13·00	15·38	18·73
Erysipelas	5	42	8·40	11·94	16·33	8·16	17·50
Pneumonia	1	63	63·00	33·29	22·60	27·00	22·50
Puerperal Fever	9	140	15·55	19·00	21·72	8·14	10·40
Encephalitis Lethargica	3	25	8·33	42·00	8·00	14·00	26·70
Other Diseases...........	16	436	24·75	34.52	22·02	17·13	32·61
Totals	692	21569	31·17	25·62	26·25	27·22	29·70

TABLE Vg.

Isolation Hospital.

Average Beds occupied daily during the year 1928.

Disease for which Admitted.	Total Days in Hospital in 1928	Average Beds occupied daily	Corresponding Figures for : 1927	1926	1925	1924
Enteric Fever	140	0·38	0·04	0·41	0·19	0·63
Scarlet Fever	16598	45·35	7·9	10·00	24·4	17·77
Diphtheria	4603	12·57	11·59	11·40	12·73	7·62
Measles	33	0·09	3·56	0·14	1·03	2·99
Erysipelas	42	0·11	0·55	0·13		
Pneumonia	4	0·01	1·58	0·63		
Puerperal Fever	140	0·38	0·57	0·65		
Encephalitis Lethargica	23	0·06	0·35	0·02		
Other Diseases	344	0·94	5·57	2·90		
Totals	21927	59·91	31·74	26·30	38·93	29·01

TABLE Vh.

Ultimate diagnosis of cases admitted in 1928.

Disease for which admitted.	Total Admitted	Original Diagnosis confirmed	Actual Disease found. Cancer	Pneumonia	Food Poisoning	No evidence of disease	Exfoliative Dermatitis	Diphtheria	Diphth. and Scar. Fever	Follicular Tonsillitis	Scarlet Fever	Tuberculosis Meningitis
Enteric Fever	4	1	1	1	1	...	...	...	...	...	...	...
Scarlet Fever	546	534	...	...	...	9	1	1	1	...	...	...
Diphtheria	124	100	...	1	...	11	...	...	1	9	2	...
Measles	2	2	...	...	...	...	...	...	...	...	...	...
Erysipelas	5	5	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	9	9	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethar.	1	...	...	...	...	...	...	...	...	...	...	1
Other Diseases	11	11	...	...	...	...	...	...	...	...	...	...
Totals ...	702	662	1	2	1	20	1	1	2	9	2	1

TABLE VI.

Isolation Hospital.

Return Cases of Scarlet Fever 1928.

The criterion of a return case is that a secondary case shall have arisen within three calendar months of the return of the original case from Hospital to his home.

Originating Cases.					Return Cases.		
Hospital Reference No.	Date of Admission	Date of Discharge	Days in Hospital	Hospital Ref. No.	Date Onset of Illness	Interval since discharge of originating case	Remarks
80 (1927)	Dec. 24	Jan. 28	31	26	Feb. 4	7 days	Removed to Hospital
20 (1928)	Jan. 30	Mar. 31	61	...	April 7	7 ,,	Treated at Home
21 ,,	Feb. 1	,, 15	43	93	March 23	8 ,,	Removed to Hospital
45 ,,	,, 22	,, 27	30	120	April 14	18 ,,	,, ,,
129 ,,	April 24	May 24	30	223	June 19	26 ,,	,, ,,
152 ,,	May 17	June 12	26	226	,, 21	9 ,,	,, ,,
204 ,,	June 15	July 28	43	317	Aug. 21	24 ,,	,, ,,
208 ,,	,, 17	,, 14	27	262	July 17	3 ,,	,, ,,
217 ,,	,, 21	Aug. 2	42	318	Aug. 26	24 ,,	,, ,,
				370	Sept. 24	53 ,,	,, ,,
259 ,,	July 18	Aug. 18	31	368	Sept. 22	34 ,,	,, ,,
386 ,,	Oct. 5	Nov. 1	27	455	Nov. 3	2 ,,	,, ,,
390 ,,	Oct. 6	Nov. 15	40	507	Dec. 2	17 ,,	,, ,,
398 ,,	,, 11	,, 20	40	498	Nov. 25	5 ,,	,, ,,
462 ,,	Nov. 13	Dec. 13	30	535	Dec. 18	5 ,,	,, ,,
468 ,,	,, 15	,, 3	18	522	,, 6	3 ,,	,, ,,

Case 217 gave rise to two return cases, the third case was admitted before the second was discharged.

TABLE Vj.

Tuberculosis.

Summary of Notifications during the Year 1928.

Age periods	Notifications on Form A and B.											
	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-	Total
Pulmonary Males	...	...	7	6	11	12	24	15	11	6	...	92
,, Females	...	5	10	9	8	15	30	6	5	...	1	89
Non-Pulmonary Males	2	10	11	3	1	1	4	5	1	...	...	38
,, Females	1	8	9	5	7	4	...	...	...	...	...	34

TABLE Vk.

Ward Incidence of Tuberculosis.

WARD	Number of Notified Cases.			Incidence Rate per 1000 of the population.
	Males	Females	Total	
Avenham	3	4	7	0.92
Trinity	16	17	33	3.18
Deepdale	13	15	28	2.31
Fishwick	11	8	19	2.38
St. Peter's	15	10	25	1.03
Ashton	9	5	14	1.46
St. John's	15	15	30	2.40
Moor Brook	5	9	14	1.49
Park	14	18	32	2.06
Maudland	3	8	11	1.06
Christ Church	12	8	20	2.20
Ribbleton	14	6	20	1.96
TOTALS ...	130	123	253	1.99

TABLE VL.

Tuberculosis.
Occupations of Notified Cases.

Description	Number
Under School Age	24
School Children	60
Cotton Mill Operatives	43
Domestic Duties	23
Labourers	21
Clerks	5
Shopkeepers and Assistants	9
Engineers and Mechanics	2
Iron Workers	4
Laundry Workers	3
Other Occupations	52
No Occupation	7
Total	253

TABLE VM.

Cause of Death.	Sex	All Ages	0—1	1—2	2–5	5–15	15–25	25-45	45-65	65-75	75 and over
Pulmonary Tuberculosis ...	M	53	1	...	...	2	6	19	20	3	2
	F	39	...	...	1	1	9	21	6	1	...
Other Tuberculous Diseases...	M	15	2	3	2	1	1	4	2	...	...
	F	15	...	2	1	5	4	1	1	1	...

TABLE Vn.

Tuberculosis. Housing.

No. of Rooms in Infected Houses.	Number of Persons.												Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	Houses	Occupants.
	Number of Families.													
1 Room ...	1	5	2	2	1	2	...	...	...	...	...	...	13	42
2 Rooms ...	...	1	...	3	...	...	...	...	...	...	...	...	4	14
3 Rooms ...	...	4	4	14	13	9	4	2	...	1	...	...	51	249
4 Rooms ...	...	4	17	10	12	9	6	4	2	...	1	...	65	316
5 Rooms ...	...	6	7	11	21	13	12	5	2	3	...	2	82	456
6 Rooms ...	...	...	...	1	...	1	...	...	...	...	...	...	2	10
7 and over ...	...	...	3	...	...	2	...	...	...	...	...	...	5	21
Families ...	1	20	33	41	47	36	22	11	4	4	1	2	222	...
Persons ...	1	40	99	164	235	216	154	88	36	40	11	24	...	1108

TABLE Vo.

Tuberculosis.

WARD.	Deaths from Pulmonary Tuberculosis.	Deaths from Non-Pulmonary Tuberculosis.	Death Rate per 1,000 of the Population.
St. John's	13	3	1·27
Avenham	2	1	0·39
Christ Church	5	2	0·77
Ashton	4	2	0·63
Maudland	8	1	0·87
St. Peter's	6	2	0·65
Moor Brook	5	1	0·64
Park	14	1	0·96
Trinity	12	2	1·35
Deepdale...	10	4	1·16
Ribbleton	7	5	1·17
Fishwick	6	5	1·38

TABLE Vp.

Tuberculosis.

Return showing the work at the Dispensary during the Year 1928.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY				TOTAL.			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—NEW CASES examined during the year (excluding contacts) :												
(*a*) Definitely tuberculous	60	49	7	17	8	7	13	18	68	56	20	35
(*b*) Doubtfully tuberculous	15	18	7	10	1	1	2	3	16	19	9	13
(*c*) Non-tuberculous	34	41	18	22	1	...	3	...	35	41	21	22
B.—CONTACTS examined during the year :												
(*a*) Definitely tuberculous	2	1	4	2	...	1	2	...	2	2	6	2
(*b*) Doubtfully tuberculous	1	1	2	3	...	1	...	...	1	2	2	3
(*c*) Non-tuberculous	8	8	12	17	...	...	...	...	8	8	12	17
C.—CASES written off the Dispensary Register as :												
(*a*) Cured	11	10	4	5	...	...	3	7	11	10	7	12
(*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	53	64	37	52	1	...	3	...	54	64	40	52
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :												
(*a*) Diagnosis completed	193	165	62	75	23	29	46	48	216	194	108	123
(*b*) Diagnosis not completed	3	1	1	1	...	...	...	...	3	1	1	1

TABLE V$_P$—(continued).

1. Number of persons on Dispensary Register on January 1st	586
2. Number of patients transferred from other areas and of "lost sight of" cases returned	9
3. Number of patients transferred to other areas and cases "lost sight of"	53
4. Died during the year	65
5. Number of observation cases under A (*b*) and B (*b*) above in which period of observation exceeded 2 months	3
6. Number of attendances at the Dispensary (including Contacts) ...	1651
7. Number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision	68
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for	
(*a*) "Light" treatment	...
(*b*) Other special forms of treatment	...
9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary ...	3
10. Number of consultations with medical practitioners :—	
(*a*) At Homes of Applicants ...	15
(*b*) Otherwise	295
11. Number of other visits by Tuberculosis Officers to Homes	21
12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	2515
13. Number of	
(*a*) Specimens of sputum, &c., examined	388
(*b*) X-ray Examinations made in connection with Dispensary work	135
14. Number of Insured Persons on Dispensary Register on the 31st December	318
15. Number of Insured Persons under Domiciliary Treatment on the 31st December	106
16. Number of reports received during the year in respect of Insured Persons :—	
(*a*) Form G.P. 17	67
(*b*) Form G.P. 36	150

TABLE Vq.

Tuberculosis.

Average number of beds available for patients during the Year 1928.

	Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis	Total
	Sanatorium Beds	Hospital Beds "Chestnuts"		
Adult Males	9	13	2	24
Adult Females	8	15	2	25
Children under 15	12	2	6	20
Total	29	30	10	69

TABLE Vr.

Extent of Residential Treatment during 1928.

			In Institutions on Jan. 1	Admitted during the Year	Discharged during the Year	Died in the Institutions	In Institutions on Dec. 31
Number of Patients	Adults	M.	21	53	43	11	20
		F.	19	46	46	4	15
	Children	M.	7	23	21	...	9
		F.	7	31	24	3	11
Totals ...			54	153	134	18	55

TABLE Vs.

Tuberculosis.

Return showing the immediate results of treatment of patients discharged from Residential Institutions during the Year 1928.

	Classification on admission to the Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution.												Total.
			Under 3 months			3—6 months			6—12 months			More than 12 months			
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Pulmonary Tuberculosis.	Class T.B. minus.	Quiescent	2	2	1	9	8	9	2	2	4	.	.	1	40
		Improved	3	4	1	1	3	.	1	1	1	1	.	.	16
		No material improvement	1	2	2	.	.	.	.	.	.	.	.	.	5
		Died in Institution ...	1	1	.	.	.	.	.	.	.	.	.	.	2
	Class T.B. plus Group 1.	Quiescent	.	.	.	1	1	.	.	2	.	.	.	.	4
		Improved	2	1	.	.	2	.	3	3	.	.	.	.	11
		No material improvement	.	1	.	.	1	.	.	.	.	.	.	.	2
		Died in Institution ...	.	.	.	.	.	.	1	1	1	.	.	.	3
	Class T.B. plus Group 2.	Quiescent	.	.	.	.	.	.	.	.	.	.	.	.	...
		Improved	1	.	.	6	1	.	.	2	.	.	.	.	10
		No material improvement	.	1	.	3	1	.	.	.	.	.	.	.	5
		Died in Institution ...	2	2	.	1	.	1	1	.	.	.	.	.	7
	Class T.B. plus Group 3.	Quiescent	.	.	.	.	.	.	.	.	.	.	.	.	...
		Improved	.	.	.	.	.	.	.	.	.	.	.	.	...
		No material improvement	2	1	.	.	.	.	.	.	.	.	.	.	3
		Died in Institution ...	4	.	.	1	.	.	.	.	.	.	.	.	5
Non-Pulmonary Tuberculosis.	Bones and Joints.	Quiescent or Arrested ...	.	.	2	.	.	1	.	.	2	.	.	.	5
		Improved	2	.	.	.	.	1	.	.	1	1	.	.	5
		No material improvement	.	.	.	.	.	.	.	.	.	.	.	1	1
		Died in Institution ...	.	.	1	.	.	.	.	.	.	.	.	.	1
	Abdominal.	Quiescent or Arrested ...	.	.	3	.	.	.	.	.	.	.	.	.	3
		Improved	.	1	1	.	.	1	.	.	.	.	.	.	3
		No material improvement	.	.	.	.	.	.	.	.	.	.	.	.	...
		Died in Institution ...	.	.	.	.	.	.	.	.	.	.	.	.	...
	Other Organs.	Quiescent or Arrested ...	.	.	.	.	.	.	.	.	.	.	.	.	...
		Improved...	.	2	.	.	.	.	.	.	.	.	.	.	2
		No material improvement	.	.	.	.	.	.	.	.	.	.	.	.	...
		Died in Institution ...	.	.	.	.	.	.	.	.	.	.	.	.	...
	Peripheral Glands.	Quiescent or Arrested ...	1	1	7	.	.	1	.	.	.	.	.	.	10
		Improved	1	3	3	.	.	.	.	.	.	.	.	.	7
		No material improvement	.	.	2	.	.	.	.	.	.	.	.	.	2
		Died in Institution ...	.	.	.	.	.	.	.	.	.	.	.	.	...

TABLE Vt.

RETURN relating to all persons who were treated at the Treatment Centre at Preston Royal Infirmary during the Year ended 31st December, 1928.

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Venereal		TOTAL	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of persons who, on the 1st January, 1928, were under treatment or observation for :—	170	165	...	...	204	45	...	...	374	210
2(a). Number of cases dealt with at the Treatment Centre during the year **for the first time**	123	71	...	...	263	55	115	59	501	185
Total—Items 1 and 2(a)	293	236	...	...	467	100	115	59	875	395
2(b). Number of persons included in Item 2(a) known to have received **previous treatment at other Centres** for the same infection	...	1	...	...	...	...	...	...	...	1
3. Number of persons who ceased to attend the out-patient Clinic										
(a) before completing the first course of treatment for	26	20	...	...	...	...	...	...	26	20
(b) after one or more courses but before completion of treatment for	55	47	...	...	...	...	...	...	55	47
(c) after completion of treatment, but before final tests as to cure of	...	1	...	...	...	...	...	...	...	1
4. Number of persons transferred to other Treatment Centres after treatment for	12	5	...	...	...	...	...	...	12	5
5. Number of persons discharged after completion of treatment and observation for	51	16	...	...	210	...	115	59	376	114
6. Number of persons who, on the 1st January, 1928, were under treatment or observation for	149	147	...	...	257	...	61	...	406	208
Total—Items 3, 4, 5 and 6	293	236	...	...	467	...	176	59	975	395
7. Out-patient attendances :—										
(a) For individual attention by the Medical Officer ...	2806	1729	...	...	1956	1245	...	...	...	...
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	...	...	...	...	10687	1320	...	...	...	...
Total Attendances ... 20,093										
8. Aggregate number of " In-patient days " of treatment given to persons who were suffering from :—	371	27	...	...	...	...	...	...	371	27

9. Examinations of Pathological material :—	For detection of			For Wassermann Reaction
	Spirochetes	Gonococci	Other Organisms	
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre	12	854	Nil.	Nil.
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory	...	...	...	503

TABLE Vu.

Statement showing the services rendered at the Treatment Centre at the Preston Royal Infirmary during the Year, classified according to the areas in which the patients resided.

	Preston	County of Lancs.	Westmorland	Blackburn	Blackpool	Burnley				Total
A. Number of persons from each area dealt with during the year at or in connection with the out-patient Clinic **for the first time** and found to be suffering from :—										
Syphilis	130	61	1	1	1	...	...			194
Soft Chancre	...	...	...	...	...	...	...			...
Gonorrhœa	216	97	...	2	1	2	...			318
Conditions other than venereal	120	54	...	...	...	...	...			174
Total	466	212	1	3	2	2	...			686
B. Total number of attendances at the out-patient Clinic of all patients residing in each area	14436	5478	18	68	47	46	...			20093
C. Aggregate number of "In-patient days" of all patients residing in each area	...	...	...	...	...	...	...			...
D. Number of doses of arsenobenzol compounds given in the 1. Out-patient Clinic—										
N.A.B. Neo.K. Stabalism .6	572	187	4	...	8	...	...			770
.45	722	342	...	8	1	...	...			1073
.75	16	6	...	...	...	...	...			22
Hg.	1248	477	3	9	8	...	...			1745
Other Medicines	1263	447	7	11	13	24	...			1765
Bismostab	197cc	67cc	...	...	...	...	...			264cc
2. In-patient Department to patients residing in each area	...	...	...	...	...	...	..			...

E. Give the names of arsenobenzol compounds used in the treatment of syphilis and the usual initial and final doses

N.A.B.—.35 or .45 to .75 grm.
Neo.K.—.35 or .45 to .75 grm.
Stabilarsan .35 to .6 grm.
Sulfarsenol .36 to .60 grm. Silver Salvarsan .15 to .30 grm.

F. State the amount and kind of treatment usually administered to a case of Syphilis of each of the types usually dealt with at the Treatment Centre

(I) Primary infection with negative Wassermann :—
e.g.,—N.A.B. or Neo.K. and Hg. or Bismostab :—2 courses of 6.30 grms., and 4.2 grms., respectively, of arseno-benzol compound, and 9 grms. of Hg. or 9 injections of .01 grm. of Bismostab.

(II) Primary infection with positive Wassermann :—
As in (I) but a short third course of five injections are given. Between each course are given Tabellae of Hyd. C. Crete, gr. 1, and T.D.S., and followed by Mist. Pot. Iod. for three weeks before another course is given.

(III) Secondary and later cases :—
As in (II) but repeating the third course.

(IV) Syphilis of the Nervous System.—Longer courses of smaller doses employing Bismostab to Hg.

G. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page

(1) Primary infection with negative Wassermann.—Two years' observation from commencement of treatment, a Wassermann being taken every three and later six months.

(2) Primary infection with positive Wassermann and secondary cases.—Two years' freedom from all signs of disease after suspension of all medical treatment, a Wassermann being taken every three and later six months. A provocative N.A.B. as required.

Gonorrhoea.

(1) Males.—Resume usual habits, food and exercise. Full sized bougies. AgNO 3 grs. V to oz. j. instillation. No discharges. Palpation over metal bougies. Microscopic examination of films made from threads of centrifugalised deposits. Palpation and massage of prostate and seminal vesicles and films made of any secretions.

(2) Females.—Resume usual habits, food and exercise. AgNO 3 to cervical canal. Palpation of urethra discharge, if any, examined. Ferguson's speculum. Discharges from vagina and cervix examined.

VI.—Maternity and Child Welfare.

Dr. Elizabeth E. Critchley, Assistant Medical Officer.

A.—STATISTICS.

1. Birth Rate.

The number of children born was 1,916 and the birth rate was 15.07 per 1,000 living, compared with 1,892 and 14.88 in 1927. Of the 1,916 births, 1,013 were males and 903 females; 1,823 were legitimate and 93 illegitimate. The percentage of illegitimate births was 4.87.

2. Infant Mortality Rate.

The number of infant deaths was 175; of these 105 were males and 70 females. Deaths among legitimate children numbered 161 and illegitimate children 14. The death rate per 1,000 born was 91.

The birth rate, infant mortality rate, the causes of and age periods at death, the proportion of males and females respectively making up the birth rate and infant mortality, and a comparison with the infant mortality figures of the Lancashire and Cheshire Great Towns, are shewn in the appendix to this section.

B.—GENERAL.

1. Maternal Deaths.

These deaths are classified as occurring under the following two headings :—

	Gross.	Nett.
Puerperal sepsis	6	3
Other accidents and diseases of pregnancy	13	9
Deaths occurred at :—		
Preston Royal Infirmary	14	8
Private dwellings	3	1
Isolation Hospital	1	1
Maternity Home	1	—
Inward transfers	—	2

Four of the above are patients who resided out of the Borough, and three of the deaths are not classified by the Registrar-General as being due to maternal causes.

The one death at the Isolation Hospital was due to puerperal septicæmia. Of the three which occurred in the patients' own homes, one was due to pulmonary embolism, the second was a case of chronic Bright's disease, and the third had suffered from anæmia for several years. The patient at the private maternity home had a normal confinement but unfortunately developed phlebitis and died from pulmonary embolism. Of the 14 cases at the Infirmary, four died from puerperal septicæmia, two from eclampsia, one from acute yellow atrophy, two from post-partum hæmorrhage, two from cardiac failure and three from shock associated with operative interference.

2. Puerperal Fever.

During the year there were seven cases of puerperal fever and 13 cases of puerperal pyrexia notified as against four of puerperal fever and 25 of puerperal pyrexia last year. It must be remembered that original notifications of puerperal pyrexia are often removed later to hospital as cases of puerperal fever and are not always re-notified as such. It is therefore more accurate to take the figures supplied by the Preston Royal Infirmary and the Isolation Hospital when considering puerperal fever itself.

In the Isolation Hospital there were nine cases, eight of whom recovered, and one died. This is surely an excellent testimony to the fact that puerperal fever ought to be classed as a fever and treated in fever hospitals. In the Infirmary there were three cases of puerperal fever and four of puerperal pyrexia notified with four deaths from puerperal fever.

3. Inspection of Midwives.

During the year 1928, 38 midwives notified the local supervising authority of their intention to practice. Of these only 33 definitely practised, the rest were either engaged in monthly nursing or did not practice for private reasons.

Midwives holding the certificate of the Central Midwives Board ...	23
Midwives bona-fide before the passing of the Midwives Act, 1902 ...	10

Eighty-six inspections of midwives were made, 65 on the district, for the purpose of inspecting bags and records, and 21 at North Road for special reasons, viz., investigation of puerperal fever, abnormalities or complaints made by patients.

The clothing and appliances of nine midwives were disinfected, five after being in contact with puerperal fever, three after maternal deaths, and one after laying out a body.

During the winter lectures for midwives were held at 2 North Road, with the exception of the last, which was held in the Council Chamber. Special lectures given were :—

" Puerperal Fever," The Medical Officer of Health.
" The Development of Ovum," Dr. F. Cumming, Assistant School Medical Officer.
" Difficult Labour," Dr. Ford, Medical Officer of the Preston Poor Law Institution.
" Cancer of the Breast," Dr. Greta Wardle, Clinical Investigator, Manchester Research Committee.

It is a matter of regret that the midwives of Preston do not attend these lectures as regularly as they might. There are a dozen who are keen and the rest are indifferent.

4. Inspection of Maternity Homes.

Under the Midwives and Maternity Homes Act, 1926, there are six registered homes in Preston. The principal maternity home, i.e. the Preston Royal Infirmary, is not subject to registration. There was one new one added during 1928, and one old one closed. All are subject to inspection at any time. There were no complaints during the year, and only one maternal death. The home where this occurred was re-inspected immediately.

5. Infant Welfare Centres.

The infant welfare centres show a good record of steady work. The decrease in the number of the toddlers can be attributed to two causes, a falling birth rate and the fact that from October to April there are now lectures in domestic subjects and a mother who is attending any particular course usually leaves the toddler at home so as to enable her to concentrate more thoroughly. The lack of suitable accommodation for the prams at two of the centres makes smooth working a difficulty. But the greatest problem of maternity and child welfare at the present moment is the lack of accommodation, particularly as regards waiting-room space at North Road. Central premises, though obviously advantageous to the mothers, will ultimately fall into disfavour if mothers have to stand on a staircase while awaiting attention. A comparison of the number of attendances at the Tuesday morning clinic to-day and at its inception three years ago, is proof of its popularity, but it seems perfectly useless to attempt to run a clinic for 50 mothers with a waiting-room which comfortably holds nine, two of whom must necessarily be awaiting their turn for the massage department upstairs.

The attendances for 1928 at the various centres were well maintained. While acknowledging the general efficiency of the staff of all the clinics, it is felt that a special word of praise is due to the two health visitors in charge of the North Road Centre, where increasing numbers and lack of accommodation have made satisfactory work difficult. While every effort is made to insist upon the mothers attending their own centres, there have been so many requests to be allowed to attend North Road that the utility of this clinic is beyond question, particularly as there is no accommodation for lectures of any description, and advice has to be given in the presence of other mothers. A course of lectures was given weekly during the winter at all the centres except North Road, commencing in October. There were six lectures in cookery, six in dressmaking, three in housewifery, and eight in home nursing. The latter were given by the health visitors, and the other three subjects by by specially qualified teachers. An attempt has been made to limit the classes to groups of 20 mothers, the mothers to enter their names and attend regularly for two complete courses. The idea being that a mother with a new baby would probably attend the clinic for two winters, and could therefore take out a course in the other two subjects next winter. The following is the average attendances, with the exception of home nursing which, at the time of writing, is not completed :—

	Cookery		Dressmaking		Housewifery	
	Total	Aver.	Total	Aver.	Total	Aver.
Fylde Road... ...	67	13	72	12	39	13
Walker Street ...	77	13	50	8	115	19
			Home Nursing			
Edward Street ...	70	12	56	10	38	13
Deepdale Mill Street	93	15	65	11	70	23
Manchester Road ...	156	26	93	15	59	19

The enthusiasm of the mothers for these lectures is a very pleasing feature, and the lecturers themselves are more than satisfied that the mothers do attempt to put into practice what they are taught.

6. Massage Centre.

The attendances at this centre have again been well maintained and punctuality the keynote. 158 patients have attended, of whom 81 have completed treatment and discharged cured, and 77 remained on the books at the end of the year. 2,584 treatments were given in the following cases, rickets, infantile paralysis, and fractures, all of a very successful character. The regular attendance of the mothers and the number of cases treated per session should be noted. No report of this clinic for 1928 would be correct without mention being made of the fact that for two-thirds of the year the masseuse, Miss Spencer, has been overworked. It is hoped to see her established on a full-time basis during 1929.

The following details are of interest :—

No. on register January 1st, 1928	54
No. of new patients	104
No. discharged cured...	81
No. on waiting list	15
No. of treatments given	2584
Referred to Orthopædic Centre	3

Completed cases may be classified as follows :—

Rickets	45
Infantile paralysis	2
Deformities	28
Fractures	4
Spastic Paralysis	4
Constipation	7
Muscular Weakness	14
Maximum No. of treatments at one session	20
No. of sessions	230
Average per session	11

7. Ante-Natal Centre.

This clinic is held weekly at 2 North Road.

The outstanding feature of the year 1928 is the marked increase in the number of attendances at the ante-natal clinic. This, in view of the present anxiety over the maternal mortality rate, is a pleasing feature; particularly when one finds that all the women referred to hospital or maternity home on account of complications of pregnancy likely to adversely influence safe delivery are living and well and all were delivered of healthy children. One cannot help but think that in a provincial town at least such a record is a convincing argument against those people who question the utility of the public health ante-natal clinic in its present form and who think it ought to be attached to a hospital and under the care of the obstetrician who has charge of the case in its later stages. One would like to see the midwives more interested in the clinic as, despite the arrangement for

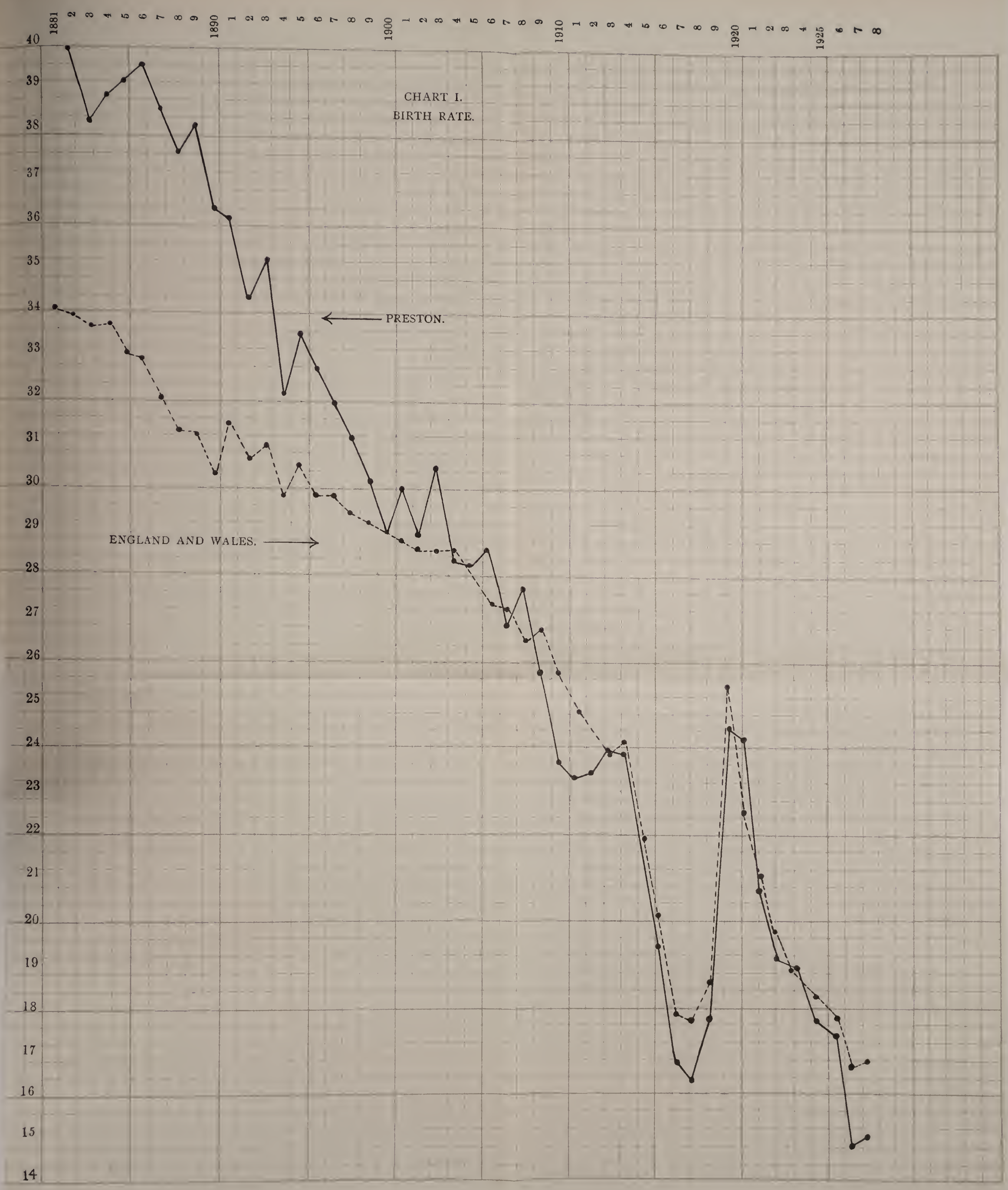


CHART I.
BIRTH RATE.

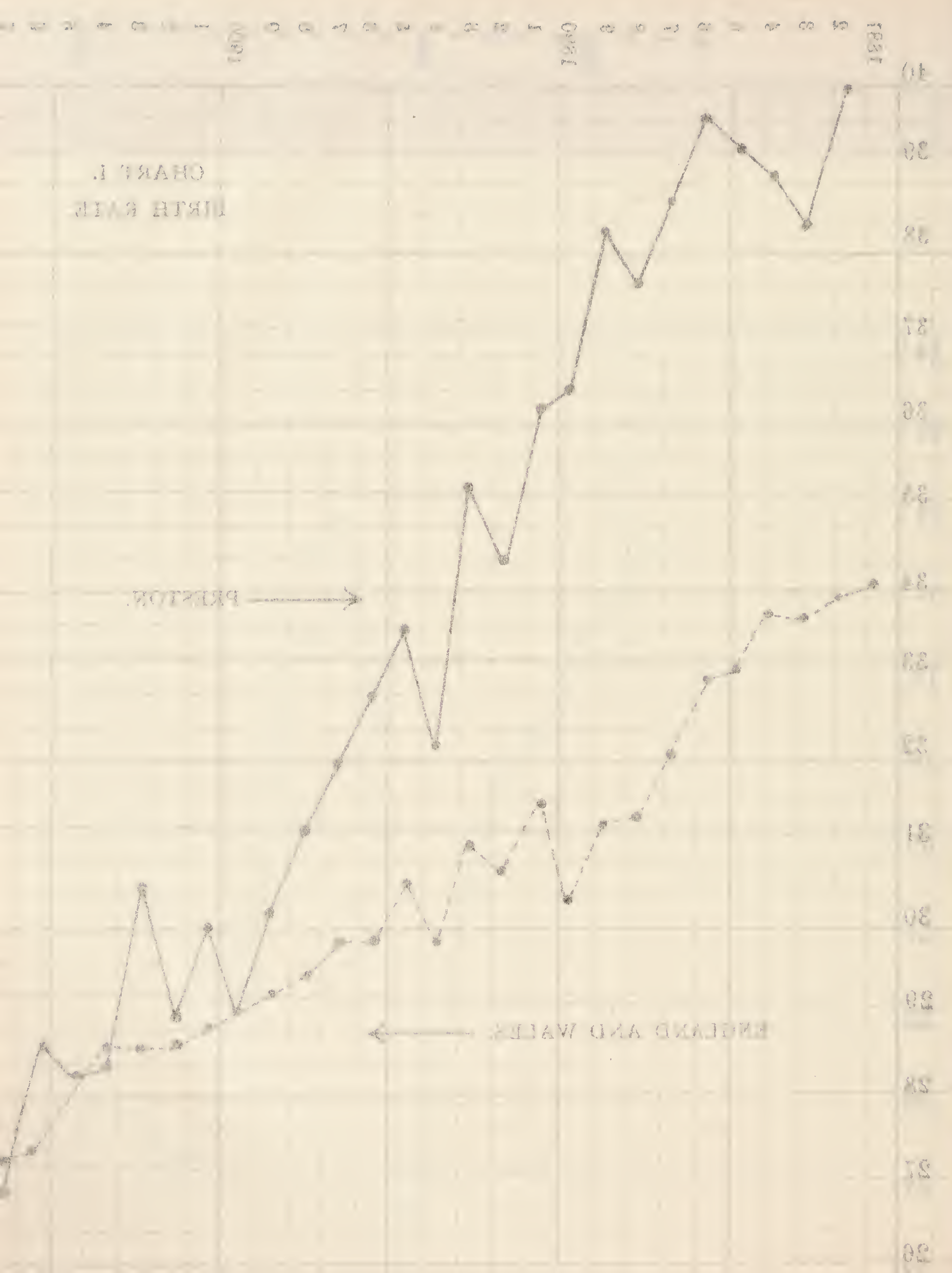
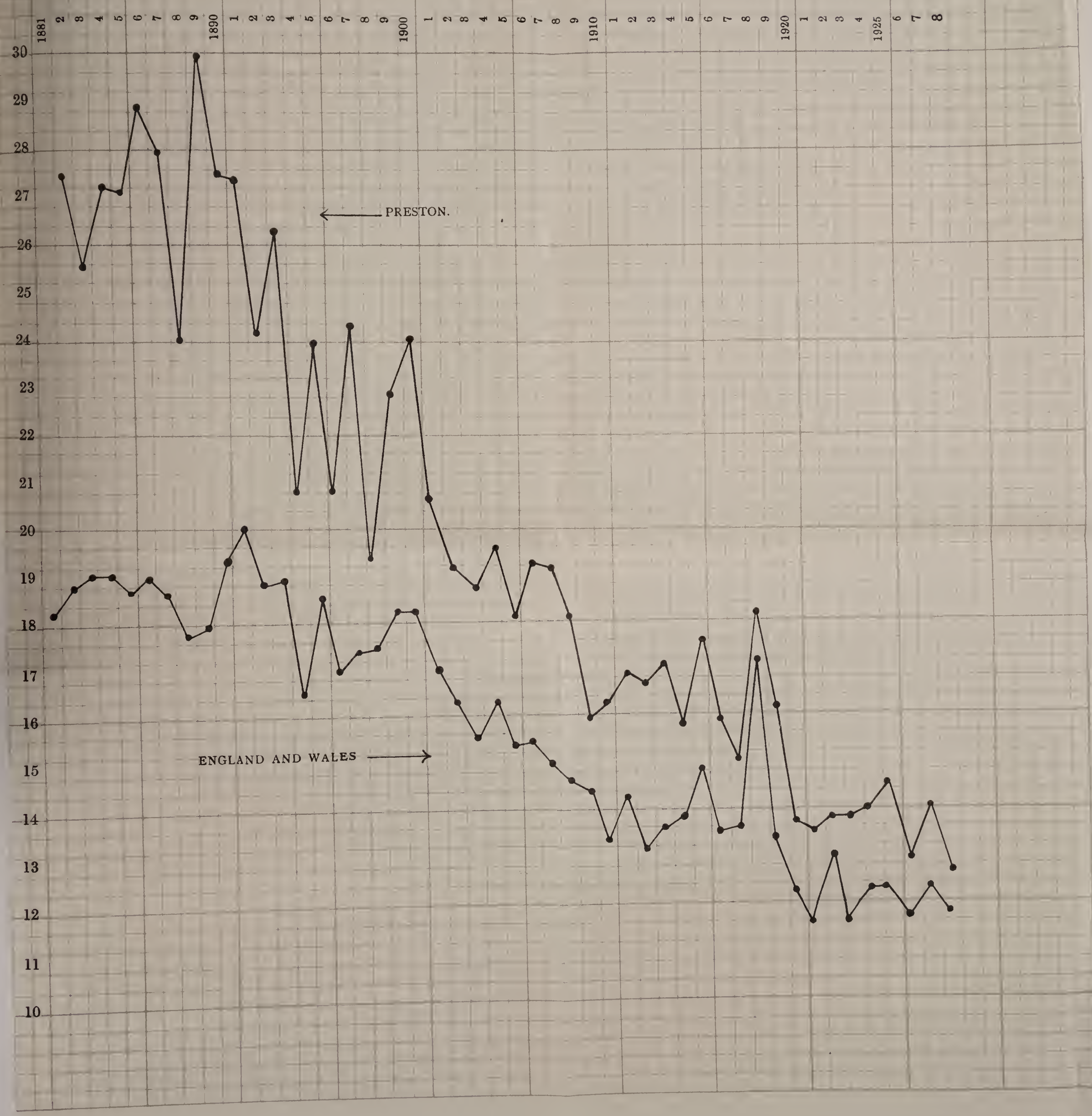


CHART I.
BIRTH RATE
PRESTON
ENGLAND AND WALES
1890
1880
1881
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26

CHART II

DEATH RATE PER 1,000 LIVING.



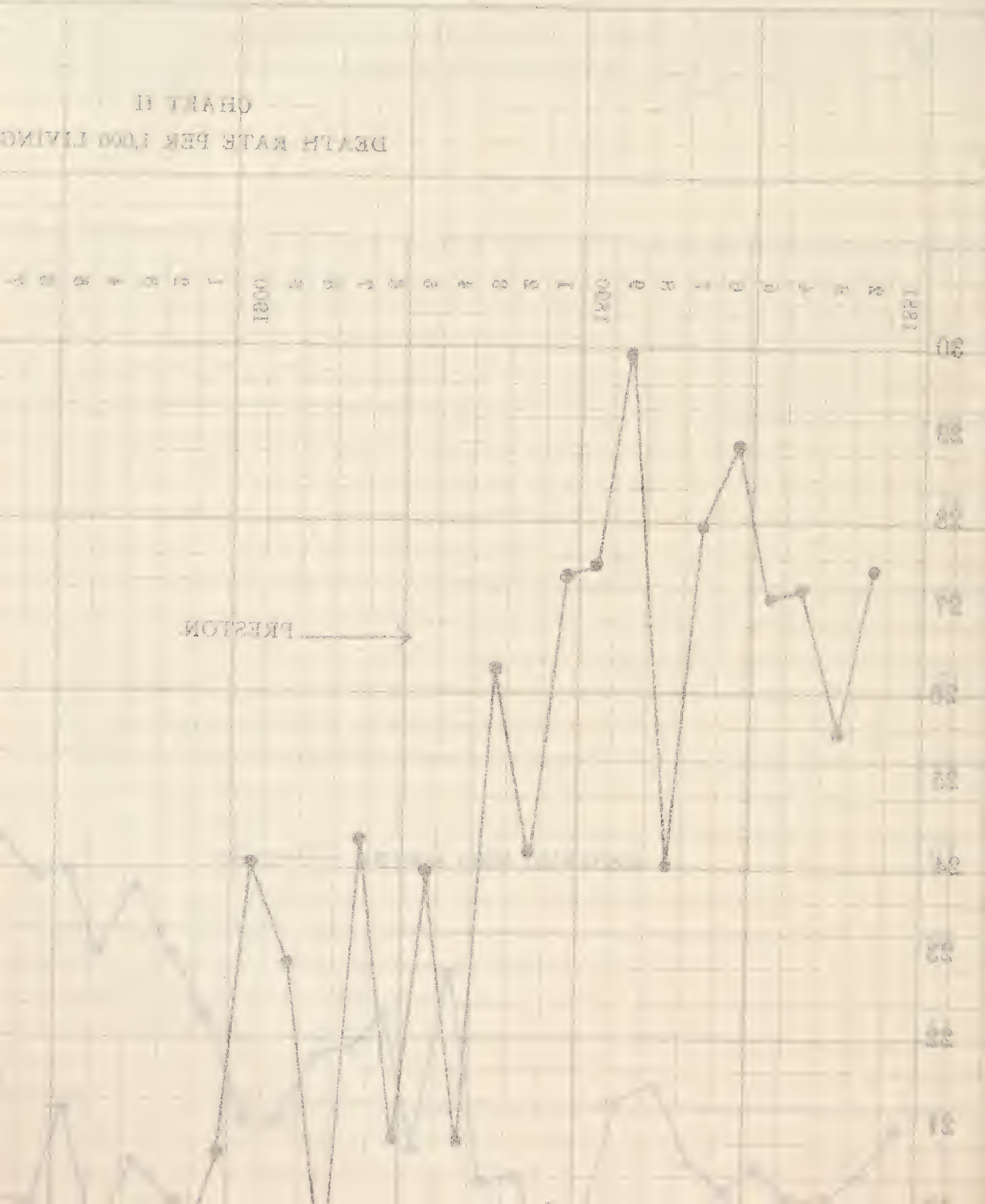
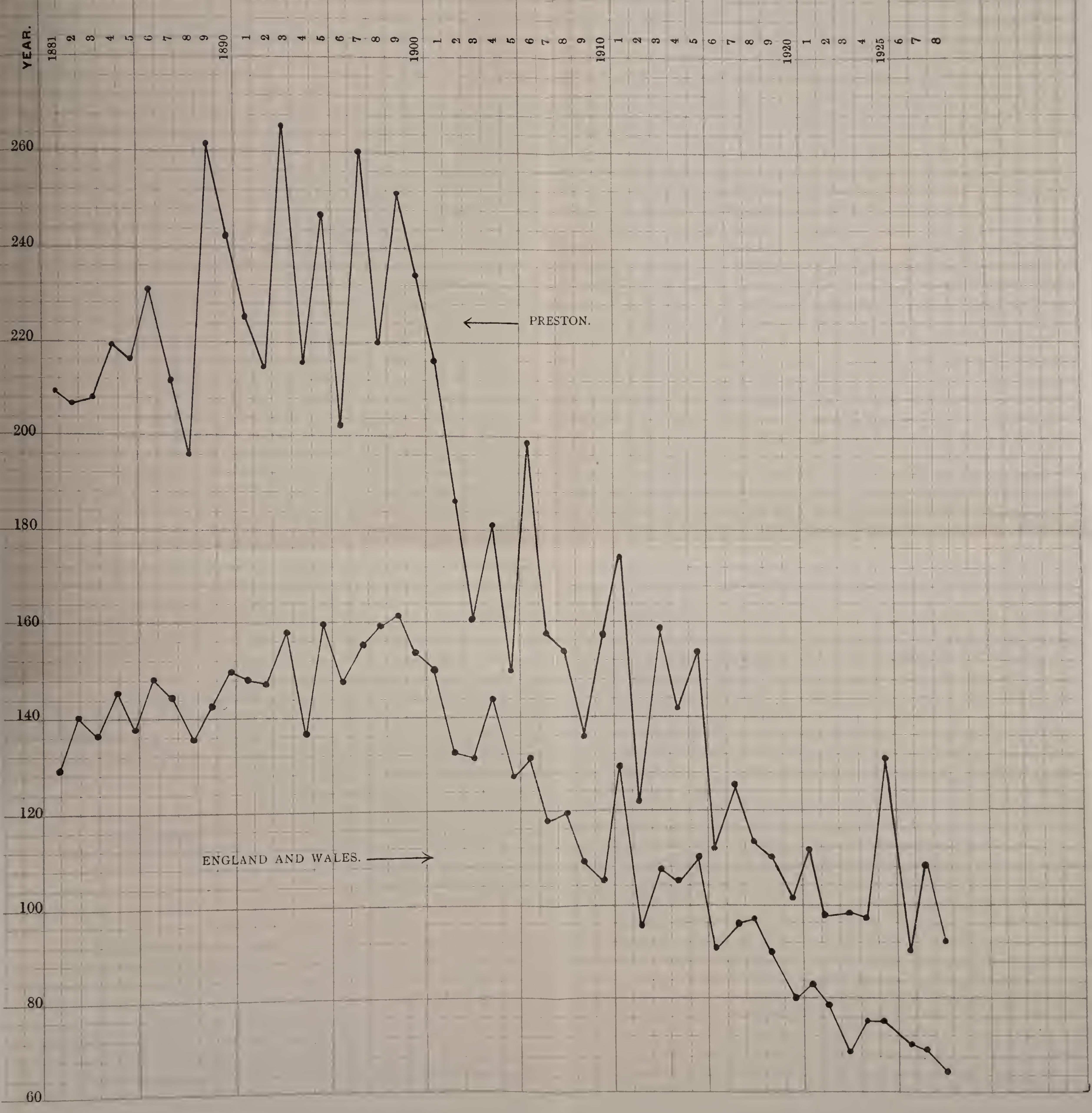


CHART III

INFANT MORTALITY 1882-1928 per 1,000 Born.



compensation for midwives' cases referred to hospital, they still show lack of enthusiasm due to a fear of losing their livelihood. In our opinion the high maternal mortality rate will continue until the younger generation of midwives hold the field themselves and educate their patients to the full value of ante-natal care.

The year 1928 has again shown increasing keenness on the part of the expectant mothers and the midwives for ante-natal care. It was thought that with the cessation of the scheme for insurance of payment of doctors' fees that the number of new cases would diminish, but this has not been the case. The mothers themselves are beginning to realise the value of pre-natal care, and it has been satisfactory to notice that they themselves of late have brought a number of young mothers, usually prima-para, who otherwise would not have come into contact with the service until after the birth of the child. Baby Week in September brought an increasing number during the last quarter of the year.

The number of total attendances was 792 and the number of new cases 346, for 47 clinics, giving a weekly attendance of 17.

	1925	1926	1927	1928
New patients	73	163	272	346
Attendances	163	352	531	792

The new cases grouped according to the infant welfare centres from which they originated, were as follows:—

Deepdale Mill Street	86
Manchester Road	75
Walker Street	71
Edward Street	58
Fylde Road	51
	341

The remaining five were from the County.

Eighty-five cases were sent direct by midwives.

In June, the Maternity and Child Welfare Committee decided to grant 50 per cent. of the midwives' fees as a compensation to midwives whose cases were referred from the ante-natal centre to either the maternity ward at the Preston Royal Infirmary or the Sharoe Green Lane Maternity Home. This action is satisfactory to both the medical officer at the centre and the midwife to whom the case belongs. Naturally the midwife would rather have 50 per cent. compensation and no responsibility in a difficult case than run the risk of being forced to send the patient into hospital at the last moment and and probably also lose her own fee. Subsequent to the above arrangement, four midwives were compensated and in each case the labour terminated satisfactorily for both mother and child. Of the 346, ten were referred to the Preston Royal Infirmary and 27 to the Sharoe Green Maternity Home.

An analysis of these cases gives the following particulars :—

Preston Royal Infirmary (10 cases) :

Normal delivery	5
Premature induction...	3
Post-partum complications	2

All the ten patients are alive and well and were delivered of healthy living children.

An analysis of the 27 cases sent to the Sharoe Green Maternity Home gives the following particulars :—

Normal delivery (two premature)	26
Cæsarean section	1

Four of the patients who had a normal delivery were suffering from other diseases, and two had post-partum complications. All the 27 were delivered of healthy children. One mother died, but though she was a Corporation case she had not actually attended the ante-natal clinic.

Fifteen cases were referred from the ante-natal clinic to the venereal diseases department. Of these, six were found on further investigation to be suffering definitely from venereal disease and after treatment all were delivered of living healthy children.

8. Dental Treatment.

Mr. P. A. Gardner, Dental Surgeon.

The number of cases treated during the year was 120, viz., 78 mothers and 42 children. Total attendances 533—with 47 sessions, make an average of 11.34 patients per session.

Closer co-operation with the ante-natal department has resulted in an increase in the attendance of expectant mothers, and it would be interesting to note if there is an improvement in the standard of babies as a result of the dental treatment.

In addition to treatment every effort is made to educate the mothers as to the correct dietary and the daily cleaning both of their own and their children's mouths. It is impressed upon them (especially in the case of expectant mothers) in simple language the effect of carious teeth and pyorrhœa on the body as a whole and on their offspring. In the majority of cases, however, the teeth have been so neglected as to necessitate almost wholesale extraction.

Dentures were provided in 34 cases, particulars of which as to cost are given below :—

Year.	No. of Applications for Dentures	No. of Applications Not Granted	Granted Free	Part Cost Granted	Cost borne by Applicant £	s.	d.	Council £	s.	d.
1926	13	2	1	10	10	0	0	33	15	0
1927	24	2	...	22	14	7	6	26	17	6
1928	34	...	1	33	53	5	0	97	9	6

The following figures show the number of patients who attended the Dental Clinic, the number of attendances made by them, and also the character of the dental work performed :—

Number of extractions ...	533	Average number per session ...	11.34
Number of fillings	138	,, ,, ,, ...	2.93
Number of dressings ...	204	,, ,, ,, ...	4.34
Number of scalings	21	,, ,, ,, ...	0.45
Dentures provided	34		
Total attendances ...	523	Number of Mothers attended ...	78
		Number of Children attended...	42

C.—BABY WEEK.

"Preston is performing such admirable work in the ante-natal care of mothers and in clinical attention to infants that in effect it holds a quiet but effective Baby Week the year round. It is permissible therefore for the town to wonder why certain days should be set apart with the specific label 'Baby Week.' A small band of workers is indefatigable in the pursuit of a great practical idea, the cultivation of the gift of health—to draw all citizens into focussing their attention for a time upon maternity welfare achievements and possibilities." (Leading article in the "Lancashire Daily Post" of September 21st, 1928).

The Maternity and Child Welfare Committee feeling that the time had come for a Baby Week of an educational nature, arranged an exhibition in the Public Hall, which was duly opened on September 24th, by Mr. E. B. Turner, F.R.C.S., of London, with the Mayor (Alderman Durham, Chairman of the Health Committee) in the chair. The exhibition contained a number of stalls, effectively decorated, at which practical demonstrations on each subject were given throughout the day, the subjects being clothing, feeding, home-nursing, the toddler, massage, laundry, housewifery, cookery and good and bad home management. During the mornings demonstrations were for clinic mothers only, and during the rest of the day for the general public. Great public interest was shown in the clean milk demonstration organised by the Grade A Milk Producers Association, and ably demonstrated by the Secretary, Mrs. Hollas. The whole process of the production from the actual milking of the cows to the bottling of the milk was shown. The popularity of this section of the exhibition was shown by the fact that in an hour as much as seven-and-a-half gallons of milk was consumed on the premises in half-pint samples. The centre of the hall was occupied by tables showing the competition and prize work done by the clinic mothers themselves and organised by the Preston Voluntary Workers' Association, who kindly gave the prizes. The entries were numerous and the standard of work excellent. A novel feature was the letter competition section and the following excerpt from the prize letter in the fathers' section is interesting from the point of view of the modern public health ideal of attempting to interest fathers :—

> "Taking into consideration the milk and other foods supplied at cost price, thereby enabling the poorest to get what they require, and thus

giving every child an equal chance to be properly reared, it shows that the scheme is good for the town's interest in giving us healthier men and women of the future and, consequently, less unfit and weakly ones. As regards the parents, I am sure it makes them take a lot more interest in the rearing of their children through the mothers attending the centres weekly and hearing the different lectures on health and hygiene than if they had nowhere to go beyond their own doorsteps."

During the afternoons and evenings of the exhibition a series of lectures was given in the Assembly Room :—

" Pure Milk," Mr. Eginton, Lancashire County Council.

" Mother—her privileges and responsibilities," Dr. H. K. Brade Burke, Salford.

" Health in the Home," Dr. H. K. Brade Burke, Salford.

" Common Dangers in Childhood," Dr. Dingwall Fordyce, Liverpool.

" Beginnings of Disease," Dr. Dingwall Fordyce, Liverpool.

The attendances at these lectures were excellent and on the last two days the room was packed to overflowing. Films on health subjects were shown after each lecture. Another important feature of the exhibition was the day nursery, which was situated in an ante-room. It proved a great boon to the mothers and was most popular. It was estimated that in three days not less than 3,300 people passed through the exhibition. On the Sunday evening previous to the opening, a lecture was given in the Princes Theatre by Mr. E. B. Turner.

In addition to the foregoing, thousands of public health leaflets and handbooks were circulated among those visiting the exhibition.

While it is impossible to single out any person, special thanks are due to the Chairman of the Maternity and Child Welfare Committee for her interest and encouragement.

D.—VOLUNTARY WORKERS.

There are 43 regular voluntary workers at the infant welfare centres.

These ladies, in addition to performing the routine clerical work, make themselves responsible for the social side of the clinic, and in particular for the provision of free dinners for expectant mothers and, last year, for the provision also of weekly holidays to Southport for " tired mothers." No praise could be too high for the conscientious manner in which they work and for their keenness to adopt any new scheme. The Medical Officer of Health again acknowledges their loyal co-operation and recognises the value of their unselfish devotion to the poor mothers of the town.

The following is submitted by the Secretary of the Voluntary Workers' Association :—

" Holidays to Southport.—27 mothers and 24 babies.

The mothers each stayed a week or a fortnight, if necessary.

Free dinners.—824 expectant and nursing mothers selected by the Medical Officer, were provided with 6,321 dinners during the period April 1st, 1928—March 31st, 1929. The highest number of women received these meals in the winter months November, December and January. Mothers from the Deepdale Mill Street Centre were the most numerous, followed by Manchester Road, Fylde Road, Walker Street and Edward Street." The excellent effect upon health and spirits of this truly charitable and useful work is beyond praise.

E.—MATERNITY BEDS.

On medical grounds 11 cases were advised to go into the maternity wards of the Preston Royal Infirmary for confinement, and for similar reasons, or because of inadequacy of accommodation at home, 29 cases were sent to the Sharoe Green Maternity Home. In nine cases the whole cost was borne by the Council, whilst in 31 cases the applicant was required to pay a portion of the cost as arranged by the Sub-Committee.

Mr. Gibson, the Secretary of the Preston Royal Infirmary, has been good enough to provide a summary of the work done in the maternity wards of that institution. It should be remembered that the hospital "district" covers a very large geographical area and that therefore the figures do not relate solely to the borough, also that the Royal Infirmary receives almost all the emergency cases occurring in private practice. Similarly, Dr. Ford's summary of the work done at the Sharoe Green Maternity Home, which is outside the borough, is included by reason of the fact that the majority of the patients originate here.

1. Royal Infirmary.

Total confinements	295
Ante-natal attendances	817
Post-natal attendances—(not recorded).	
Admissions for ante-natal treatment...	18
Admissions for post-natal treatment...	2
Maternal deaths...	8
Infantile deaths...	17
Still births	36
Morbidity—mild—(not recorded).	
Morbidity—severe	8

2. Sharoe Green Maternity Home.

The numbers resorting to this institution are exhibiting a most gratifying increase, this year's total equalling those for both the previous years put together.

Total confinements	404 (also five other cases).
Ante-natal attendances	2320
Post-natal attendances	132
Admissions for ante-natal treatment	12
Admissions for post-natal treatment	3
Maternal deaths	4
Infantile deaths	11
Still births	12
Morbidity—mild	56
severe	6

It is gratifying to note the manner in which the patients avail themselves of the ante-natal department, and also to note that more advantage is being taken of the facilities for post-natal examination.

Of the total of 23 still births and infantile deaths, five were due to deformities and seven to prematurity.

It should be explained that a much higher standard of " morbidity " is set than is usual. Any rises of temperature or of pulse are held to call for investigation. It is probably due partly to these rigorous precautions that we have not had any deaths from sepsis.

F.—ISSUE OF FREE MILK, ETC.

Three hundred and sixty persons received free food in the form of cows milk or dried milk from the Corporation. The total amount involved was £759 14s. 9d., and the average cost per head equalled £2 2s. 2d. or 2s. 3d. more than in 1927. The investigation of the income of applicants and the administration of the scheme, together with that relating to the provision of home helps, midwives and doctors, absorbs a tremendous amount of work on the part of the staff and the responsible Sub-Committee. At each monthly meeting over 150 individual cases have to be considered with full reports on each. Co-operation with the Board of Guardians, the Pensions Committee, the Employment Exchange, the Friendly Societies and charitable agencies is maintained by diligent enquiries and collation of information.

Two hundred and forty-one cases were taken off the list during 1928 on account of improvement in circumstances, death or removal.

In addition to the provision of milk, dried milk, Ovaltine, etc., necessitous cases were further helped by the provision, by the Council, of a doctor, midwife or home help, at confinement in 159 cases free of charge, whilst in 36 cases the person applying for assistance was required to pay a portion of the cost.

G.—Report submitted to the Maternity and Child Welfare Committee, October, 1928.

Physical Condition of the Women attending the Infant Welfare Clinics.

It is attempted here in a few lines to indicate to the Maternity and Child Welfare Committee whether the present difficult position in the cotton trade and other industries in the town has had any deleterious effect upon the physical welfare and condition of the working class mothers of the town. Generally speaking there is no need to ask this question of the public health service for since 1922 Preston has been in the trough of a trade depression unequalled since the days of the Cotton Famine in the American Civil War. We have had of recent years a large number varying between three and ten thousand workpeople unemployed and in addition a large volume of under-employment by reason of organised short time. In the great Cotton Famine however there was practically no organised help available other than charity and a poor law system much more harshly administered than it is to-day.

Of actual starvation it can be said confidently that there is none. Of the amenities, amusements and recreation which are customary among people, and which, with a sufficiency of food and shelter, make life other than a mere existence, there is that deprivation which is represented by the difference between a full week's wage and the unemployment benefit or outdoor relief. It should be borne in mind that the incidence of unemployment is spread evenly over the town and that it will be comparatively rare to find whole families unemployed, as are whole families in colliery districts in Durham and South Wales. Also that unemployment benefit, being legally due and contributed for, is drawn by many elderly persons, particularly women who would, without it, have retired. There are two supplementary methods by which this question can be approached. Firstly, a personal opinion by those in close contact with the people and, secondly, statistical evidence. I am including evidence of the first kind from general medical practitioners in the town and others who are in a specially favourable position for observation with the proviso that, after all, these are only personal opinions on a subject upon which it is very difficult to form a considered judgment and upon which members of the Committee, with the scanty data available are equally capable of forming an opinion.

The statistical evidence relates to Poor Law Relief, Unemployment Benefit, National Health Insurance and assistance given by the Maternity and Child Welfare and Education Committees. This evidence is subject to so many disturbing factors that without laborious analysis it is not of great directional value. Reliable evidence would necessitate scientifically taken observations such as are obtained among the children attending the Open Air School, i.e. repeated observations of the weight and notes taken at intervals upon the health of the persons concerned.

With these preliminary observations and in view of the lack of any precise data, with considerable diffidence, the following is submitted :—

(a) Personal Evidence by Persons in close contact with Working Class Mothers.

1. General Medical Practitioners.

The following letter was addressed to 72 medical men and women practising in the borough :—

[COPY OF LETTER]

Dear Sir (or Madam),

The Maternity and Child Welfare Committee of the Council are now considering their programme of work for next year and have asked me to enquire as to whether the nutritional state of working class mothers is deteriorating as a result of the prolonged industrial depression.

I am fully aware that such a question cannot be satisfactorily answered without comprehensive tests involving repeated clinical observations, including records of weight variations, resistance to epidemic illnesses and so forth, for the obtaining of which no organisation exists. I consider however that an opinion from medical practitioners based upon their general observation would be of value, and I am writing therefore to ask if you would be good enough to complete the enclosed questionnaire and add to it any observations you care to make.

I may add that any replies I may receive will be treated anonymously.

I am,
Yours faithfully,
(Signed) F. A. SHARPE,
Medical Officer of Health.

Twenty replies were received.

The following observations were made by seven doctors, who are of the opinion that there was evidence of deterioration.

Two doctors replied in the affirmative without any comments. The remainder added the following comments :—

(1) " In my experience the deterioration in physical condition is due to worry and anxiety in connection with domestic finance rather than to insufficient or improper food."

(2) " From clinical records kept in my practice of all patients (mostly panel) during the last three or four years, I have come to the following conclusions :—

That there is a steady decrease of weight in the majority of cases which is not found amongst women of the upper middle classes.

That the mothers are unable to follow the doctor's instructions and advice re nourishment and clothing of the body."

(3) " Slight evidence. I do not think that this affirmative answer applies any more to expectant mothers than to the industrial workers as a whole."

(4) " I have not sufficient data to give definite opinion.

Any deterioration is, I think, more noticeable in cases of pregnancy, possibly owing to loss of wages and shortage of proper food."

(5) " I find that the nutrition of working class mothers is much lower than I had expected to find."

The following observations were made by the 13 doctors who were of the opinion that there was no evidence of deterioration.

Four doctors replied in the negative without comment. The remarks of the remainder are as below :—

(1) " The frequent cessation of nursing after a month or so in order to allow the mother to return to work is of very questionable benefit to the child. Though this does not apply to unmarried mothers, who are usually very fit, yet there is a striking difference in physical condition and nutrition between married women of the " working " and " Poor Law " classes, the latter being most inferior."

(2) " Not generally. I have only noticed one or two, but these are exceptions. Since the war I think that confinements have needed more interference."

(3) " The food supply to the family is not much affected. In my opinion it is the type of food and the cooking of it that are at fault, and this applies to prosperous periods as much as at present. Many working class mothers are working women and they have not the time for cooking or the ability to cook good meals."

(4) " The people are living on their fat and the fat of others. It is a state of affairs well represented by Oliver Wendell Holmes in his ' Incipit Allegoria Senectutis ' *vide* Autocrat At The Breakfast Table, where he refers to ' old age.' "

(5) " Not materially in my own experience."

(6) " Not in my observations. The last thing to be sacrificed is food and the change is more in the quality and simplicity of the foodstuffs consumed than in the quantity. Personally, I think the enforced abstemiousness has been beneficial."

(7) " I have not seen the slightest sign of physical deterioration in the mothers. On the other hand, their condition is far better than 20 to 30 years ago."

(8) " Apparently, in Preston, there is usually more than one worker in a family and it is rare to find all out of work at once."

(9) " Judging from the good nutrition and physical condition of school children I am inclined to think the mothers are not suffering in these respects. Casual observation in the home confirms this."

2. Official Medical Evidence.

Dr. Rose, Assistant School Medical Officer, writes as follows :—

" I cannot say that I have observed any difference in the last few years. Of course, I see comparatively few mothers and do not see them in their own homes.

I have been in communication with Miss Wilkinson, the Welfare Supervisor at Horrockses, and she and her assistants are of the same opinion as myself. She informs me that she has noticed that expectant mothers remain longer at work than they used to do and return sooner after confinement than they did formerly."

Dr. Critchley, Assistant Medical Officer for Maternity and Child Welfare, writes as follows :—

" There is at present no appreciable difference in the health of women attending the welfare centres compared with two years ago. Any difference is usually manifested during periods of epidemics amongst the school children."

3. Other Evidence of experienced Lay Observers.

(a) The late Mr. Jepson, Manager of the Employment Exchange, stated in his summary included in my annual report for 1922 :—

" My contact with the applicants has convinced me that there has been going on for a long time a deterioration in the appearance and health of the individuals concerned."

In 1923, he said :—

" Unemployment benefit affords approximately one-third of the amount the applicants would receive as wages if they were in work and as for quite a long time hundreds of families have been compelled to subsist upon practically one-third of the amount which would be at their disposal in normal times it follows that there has been a great deal of studied economy to spend the money to the best advantage and even after this some scarcity, some suffering and a great deal of domestic anxiety."

Mr. Jepson noted a general and decided improvement in the cotton industry in 1924, no very great variation in 1925, with a not very re-assuring outlook for 1926. The figures were appreciably higher in 1926, with a decided improvement in the cotton industry in the early part of 1927.

In his last report he said that " The employment position in Preston during 1927 was much more satisfactory than in the previous year. In the summer of 1927 the number of people either wholly unemployed or temporarily stopped did not come up to the same figures for any of the corresponding periods during the last three years. The improvement reflected in these figures is fairly general and not confined to any one industry." Mr. Jepson concluded by saying, " The total amount of unemployment benefit paid out in the months covered by this report " i.e. April, 1927, to March, 1928, " has been £121,771, which is less than half the amount paid out during the corresponding period of the previous year, and as compared with 1925-26 the amount is approximately £28,000 less."

(b) The Matron of the Queen Victoria Jubilee Nursing Association tells me that, " It is my impression that the physical condition and nutrition of working class mothers shows a strong tendency to improve in spite of industrial conditions. This view is based on my own observations in the many homes where unemployment has been prolonged and in others where the income is supplemented by Poor Law Relief."

(c) Mr. Dearnley, the Clerk to the Preston Insurance Committee, replied to my enquiries as follows :—

" I enclose you herewith the number of prescriptions issued for the respective years 1921-1927 inclusive. These are not separated into men and women as there is no need for us to keep this data.

The cost of the prescriptions is not very reliable on account of the fluctuating prices of drugs. I have therefore not given it.

Through the kindness of a Secretary of one of the Local Approved Societies, which has approximately an equal number of men and women, I have ascertained the amount of money paid to the men and to the women. These figures are again somewhat complicated as the flat rate of benefit for men is 15s. od. per week and that for women 12s. od. per week.

I have attempted to reduce them to the same basis and the women's sickness appears to exceed that of the men by between 60 and 70 per cent. with a decreasing tendency over the last three years.

The excess is decreasing although the claims of both men and women are on the increase."

(b) Statistical Evidence.

1. Preston Insurance Committee.

Number of prescriptions issued for the years 1921-27 :—

Year	Population	Insured Persons	No. issued
1921	119900	59147	120273
1922	120900	58081	175124
1923	121700	57774	216335
1924	123100	57836	269611
1925	122900	57838	270312
1926	124200	58787	290506
1927	127100	59155	324636
1928	127100	59437	......

2. Unemployment.

Number of persons on the register :—

December Year	Men	Women	Boys	Girls
1922	3918	1183	355	181
1923	3951	2862	114	127
1924	2595	910	41	29
1925	2479	710	77	64
1926	5068	6302	136	141
1927	2788	1829	127	111

3. Use made of Poor Law Facilities.

Number of women received into the Poor Law Institution, Fulwood :—

Year	Women	Children
1921	294	109
1922	256	89
1923	279	104
1924	224	76
1925	347	84
1926	334	109
1927	269	30

Outdoor relief paid in respect of the Borough :—

Year	Amount £	s.	d.
1921	12133	16	0
1922	11692	1	7
1923	4384	12	11
1924	7253	17	1
1925	9105	8	7
1926	12137	0	6
1927	11924	10	3

4. Summarised Statement of the cost to the Council of the work of the Maternity and Child Welfare Committee given in £'s only.

	Supplied Free or Contribution to cost of :—				
	£ 1927	£ 1926	£ 1925	£ 1924	£ 1923
Foods and Drugs ...	705	1244	1556	1509	932
Dentures	26	33	...	36	...
Bed at P.R.I.	69	62	...	...	...
Bed at Sharoe Green Lne.	103	30	...	...	...
Home Help	33	28	88	89	...
Midwife	108	154	127	146	...
Doctor	162	121	121	93	...

Voluntary Workers.

The number of Free Dinners for Expectant Mothers, December, 1927, to April, 1928, was 1,091.

5. Preston Education Committee.

Number of children receiving Free Dinners :—

	Week ending SEPTEMBER				Week ending FEBRUARY			
	28th	21st	14th	7th	24th	17th	10th	3rd
1928 ...	152	160	168	156	194	192	194	191
1927 ...	159	153	156	153	240	243	220	229
1926 ...	245	252	254	254	229	217	224	222
1925 ...	217	222	226	234	241	250	241	246
1924 ...	325	319	327	316	384	399	376	386
1923 ...	364	360	353	344	357	353	354	350
1922 ...	306	311	143*	106*	700	703	666	655

* Guild Week.

APPENDIX
TO
SECTION VI.

TABLES.

	Birth Rate		Infantile Mortality	
	Males	Females	Males	Females
1923	10.01	9.7	107	88
1924	9.69	9.3	122	70
1925	8.8	8.8	144	119
1926	9.0	8.3	98	82
1927	7.70	7.18	121	96
1928	7.97	7.10	103	77

Year	Legitimate Births	Deaths of Legitimate Children	Rate per 1000 born	Illegitimate Births	Per cent of total	Illegitimate Deaths	Rate per 1000 born
1915	2387	...	...	132	5·5	...	...
1916	2150	...	...	143	6·6	...	...
1917	1831	...	...	167	9·0	...	...
1918	1754	...	...	181	10·3	...	...
1919	1984	...	...	174	8·0	...	...
1920	2810	280	99	174	5·8	21	120
1921	2534	278	109	177	6·3	38	215
1922	2350	225	95	132	5·6	17	129
1923	2316	220	95	110	4·5	18	164
1924	2216	202	91	112	4·8	23	205
1925	2088	273	131	86	3·9	13	151
1926	2045	170	83	115	5·3	25	217
1927	1796	189	105	96	5·08	17	177
1928	1823	161	84	93	4·8	14	151

TABLE VIa.

Infantile Mortality, 1928.

Nett Deaths from stated Causes at various Ages under One Year of age.

CAUSE OF DEATH.	Under 1 Week.	1 - 2 Weeks.	2 - 3 Weeks.	3 - 4 Weeks.	Total under 1 Month.	1 - 3 Months.	3 - 6 Months.	6 - 9 Months.	9 - 12 Months.	Total Deaths under One Year.	
All Causes:—											
Certified	51	10	7	11	79	33	28	12	20	172	
Uncertified	...	...	1	...	1	2	...	...	...	3	
										M	F
Small Pox	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	1	2	1	2	4	2
Diphtheria and Croup	...	...	...	...	...	...	...	...	1	1	...
Erysipelas	...	...	...	...	...	1	...	1	1	...	3
Tuberculous Meningitis	...	...	...	...	...	...	...	...	1	1	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	1	...	1	2	...
Meningitis (not Tuberculous)	...	...	1	...	1	...	1	1	...	2	1
Convulsions	3	...	1	...	4	3	1	2	2	9	3
Laryngitis	...	...	...	...	...	1	...	...	...	...	1
Bronchitis	...	...	...	1	1	2	3	1	3	5	5
Pneumonia (all forms)	...	...	...	...	...	5	7	4	5	16	5
Diarrhœa	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	2	2	3	3	...	...	6	2
Gastritis	...	...	...	...	..	...	2	...	...	1	1
Syphilis	...	...	...	1	1	1	...	...	...	2	...
Rickets	...	...	...	..	...	...	...	...	...	...	...
Suffocation, overlying	1	...	...	...	1	...	...	...	...	...	1
Injury at Birth	5	...	...	...	5	...	...	...	...	3	2
Atelectasis	3	...	...	...	3	...	...	...	...	...	3
Congenital Malformations	5	1	2	1	9	2	1	...	...	5	7
Premature Birth	28	7	2	4	41	7	1	...	...	33	16
Atrophy, Debility and Marasmus	6	...	2	2	10	8	3	...	3	14	10
Other causes	...	2	...	...	2	1	3	2	1	5	4
Total	51	10	8	11	80	35	28	12	20	109	66

The deaths classified as Other Causes in the preceding Table may be further classified as follows :—

	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	1—3 months	3—6 months	6—9 months	9—12 months	Total
Glands in the Axilla	...	...	...	...	...	1	...	...	1
Dilatation of Stomach	...	...	...	...	1	...	...	...	1
Pleurisy	...	...	...	...	...	...	1	...	1
Icterus Neonatorum	...	2	...	...	...	...	...	...	2
Intussusception	...	...	...	...	...	1	1	...	2
Abscess in Neck	...	...	...	...	...	1	...	...	1
Influenza	...	...	...	...	...	...	...	1	1
Totals	...	2	...	...	1	3	2	1	9

TABLE VIb.

Maternal Deaths. Incidence, Morbidity and Mortality.

Year.	No. of Nett Births	PUERPERAL FEVER.				Other Accidents and Diseases of Pregnancy.		Total Mortality from Child Birth.
		No. of Cases Notified.	No. of Deaths.	Incidence per 1000 Births.	Mortality per 1000 Births.	No. of Deaths	Mortality per 1000 Births.	
1911	2726	6	2	2.20	0.73	13	4.73	5.50
1912	2753	2	1	0.72	0.36	4	1.45	1.82
1913	2888	7	2	2.42	0.69	6	2.08	2.77
1914	2841	7	2	2.46	0.70	20	7.04	7.74
1915	2546	9	5	3.53	1.96	7	2.75	4.71
Average	2751	6.2	2.4	2.26	0.89	10.0	3.61	4.51
1916	2315	3	3	1.29	1.29	3	1.30	2.59
1917	2019	1	1	0.49	0.49	5	2.47	2.96
1918	1906	3	2	1.57	1.05	4	2.10	3.15
1919	2086	9	5	4.31	2.39	4	1.92	4.31
1920	2984	16	9	4.69	3.01	13	4.36	7.37
Average	2262	6.8	4.0	2.47	1.65	6.0	2.43	4.08
1921	2811	8	7	2.82	2.49	8	2.85	5.34
1922	2482	8	3	3.22	1.20	9	3.63	4.83
1923	2426	8	3	3.30	1.24	8	3.30	4.54
1924	2328	8	5	3.40	2.15	8	3.43	5.58
1925	2174	8	6	3.68	2.76	7	3.22	5.98
Average	2444	8.0	4.8	3.28	1.97	8.0	3.29	5.25
1926	2160	*20	8	9.26	3.70	9	4.17	7.87
1927	1892	**29	3	15.33	1.59	6	3.18	4.77
1928	1916	***25	3	13.05	1.57	9	4.70	6.27

* Includes eight cases of Puerperal Pyrexia notified in the last three months of the year.

** Includes 25 cases of Puerperal Pyrexia.

*** ,, 21 ,, ,, ,, ,,

TABLE VIc.

Allocation of Births, Infant and Maternal Deaths.

	Total No. of Births Registered	Nett Births	Nett Infant Deaths	Puerperal Fever and Pyrexia		Deaths from other diseases of Pregnancy and Parturition
				Cases	Deaths	
Private Houses	1424	1410	124	....	..	1
Nursing Homes	49	18	2	...	...	...
Royal Infirmary	257	147	22	...	1	7
Isolation Hospital	...	...	2	...	1	...
Midwives Homes	47	39	1	...	...	...
Other Institutions (Inward Transfers)	...	302	24	...	1	1
Total	1777	1916	175	25	3	9

TABLE VId.

Attendance on Women at Child Birth.

THE BIRTHS WERE ATTENDED BY :—	District **1**	District **1a**	District **2**	District **3**	District **4**	District **5**	District **6**	**Total**	% 1927	% 192
Midwives alone	150	140	163	205	162	198	101	1119	54	6
Doctors and Midwives	103	89	117	91	71	97	43	611	38	3
Doctors and Monthly Nurses	53	...	9	...	...	12	...	74	5	4
Doctors and Unqualified Women	9	4	7	2	2	8	6	38	3	2
TOTALS	315	233	296	298	235	315	150	1842		

TABLE VIe.

Notification of Births

Received from :—

District	Midwives	Doctors	Parents	Royal Infirmary	Private Nursing Homes	Total
1	231	1	12	32	32	308
1A	169	...	...	20	26	215
2	229	...	17	31	39	316
3	199	1	14	25	57	296
4	184	1	10	26	37	258
5	200	1	10	25	32	268
6	101	1	7	16	29	154
	1313	5	70	175	252	1815

TABLE VIf.

Number of Attendances at Centres.

Situation of Centre	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Deepdale Mill Street	1836	1741	2722	3318	3509	4024	4137	4072	4277	4262	4528
Walker Street	2536	2398	2850	2824	4150	5233	5728	5965	5732	4547	5709
Fylde Road	2402	1543	2648	2732	2338	2889	3322	2929	3783	4248	3817
Edward Street	1280	997	754	1639	1896	2362	3345	3261	3816	2690	2676
Manchester Road ...	1774	1811	1991	2507	2488	2990	4509	3892	3980	3913	4535
North Road	...	83	203	180	384	397	386	163	352	1191	2546
Totals	9828	8573	11168	13200	14765	17895	21427	20282	21940	20851	23811

TABLE VIg.

Allocation of Attendances at Centres.

Situation of Centre	Total Infants (a)	New Infants included in (a) (b)	Older Children	Expectant Mothers	Total Attendances
Deepdale Mill Street .	3253	257	886	389	4528
Walker Street	4630	214	833	246	5709
Fylde Road	3028	160	557	232	3817
Edward Street	2136	140	322	218	2676
Manchester Road	3271	184	915	349	4535
North Road Centre ..	1605	124	95	3	1703
Ante-Natal Clinic	...	...	...	843	843
Totals	17923	1079	3608	2280	23811

TABLE VIh.

Statement of Sale of Foods and Free Supplies during the year 1928.

	Value of Foods Sold £	s.	d.	Value of Foods Supplied Free £	s.	d.
Cows Milk	Nil.			548	13	0
Dried Milk	323	14	3	155	8	0
Lactogol	2	12	6	0	7	6
Virol	99	9	7	13	14	1
Ovaltine...	290	10	1	36	18	0
Cod Liver Oil Emulsion	25	9	6	3	9	0
Cod Liver Oil and Malt	2	12	9	0	14	8
Parish's Chemical Food	2	6	11	0	10	6
Total	746	15	7	759	14	9

TABLE VII.

Emergency Calls by Midwives for Medical Assistance (Midwives Acts, 1902 and 1918).

Year.	No. of Applications to be helped to pay. Doctor's Accnt	Whole Cost Granted.	Part Cost Granted.	Not Granted.	Cost Borne by Council.	Cost Borne by Applicant.	Average Cost per instance.
1924	47	37	Nil.	10	£93 11 0	£18 16 0	£2 7 9
1925	70	60	2	8	£121 2 6	Nil.	£1 14 7
1926	76	63	5	8	£121 14 6	£11 7 6	£1 15 0
1927	105	46	20	39	£162 15 6	£32 7 0	£1 11 0
1928	76	46	15	15	£107 1 6	£20 14 0	£1 13 7

Services of Midwives.

Year.	No. of Applications for Services of Midwife.	Whole Cost Granted.	Part Cost Granted.	Not Granted.	Cost Borne by Council.	Cost Borne by Applicants.	Average Cost to Council per case assisted
1924	137	115	Nil.	23	£146 10 0	Nil.	£1 5 6
1925	121	92	10	19	£127 1 3	£2 11 3	£1 5 5
1926	144	115	10	19	£154 0 3	£5 12 9	£1 5 6
1927	111	71	15	25	£108 0 0	£7 1 3	£1 5 1
1928	149	67	19	29	£100 17 0	£8 0 6	£1 5 3

Services of Home Helps.

Year.	No. of Applications for services of Home Help	Whole Cost Granted.	Part Cost Granted.	Not Granted.	Cost Borne by Council.	Cost Borne by Applicants.	Average Cost to Council per case assisted
1924	40	31	4	5	£89 15 0	£3 0 0	£2 11 6
1925	46	29	6	11	£88 5 9	£3 3 0	£2 12 2
1926	17	9	5	3	£28 15 9	£9 4 0	£2 14 11
1927	16	9	6	1	£33 15 6	£2 11 0	£2 5 0
1928	11	9	2	...	£31 12 9	11 3	£2 18 6

TABLE VIj.

Beds at the Sharoe Green Maternity Home.

Year.	No. of Applications for Bed.	Whole Cost Granted.	Part Cost Granted.	Not Granted.	Cost Borne by Council.	Cost Borne by Applicants.	Average Cost to Council per case assisted
1926	8	3	¼ cost in 1 case; Maternity Benefit to be paid in 3 cases.	1	£30 16 6	Nil.	£5 2 9
1927	29	4	½ cost in 2 cases; Maternity Benefit to be paid in 19 cases (of these, 4 were women confined at home).	4	£103 17 0	£32 10 0	£4 18 11
1928	31	2	½ cost in one case; Maternity Benefit in 26 cases (of these 8 were women confined at home).	2	£112 12 6	£32 10 6	£6 18 3

Beds in the Maternity Ward at the Royal Infirmary.

Year.	No. of Applications for Bed.	Whole Cost Granted.	Part Cost Granted.	Not Granted.	Cost Borne by Council.	Cost Borne by Applicants.	Average Cost per instance.
1926	15	7	¼ cost in 2 cases; ¾ cost in 2 cases; Maternity Benefit to pay in 2 cases	2	£62 13 10	£16 14 6	£6 2 2
1927	12	4	¼ cost in 1 case; M.B. to pay in 7 cases	nil	£69 16 6	£10 16 0	£5 16 2
1928	13	3	Maternity Benefit to pay in 5 cases (1 confined at home).	4	£45 12 11	£9 9 6	£6 17 9

TABLE VIk. Summarised Statement of the work of the Health Visitors.

District	Wards	Visits to															Total Visits
		Ante-Natal Cases	Births		Older Children				Disease Conditions								
			1st Visits	Re-Visits	1—2 years	2—3 years	3—4 years	4—5 years	Ophthalmia Neonatorum	Puerperal Fever and Pyrexia	Pneumonia	Measles	Whooping Cough	Mumps, Chicken Pox, etc.	Epidemic Enteritis	Erysipelas	
1	Fishwick .... Ribbleton	120	315	677	436	294	234	401	1	3	14	7	6	39	...	6	2553
1A	Deepdale .... Park (part of) ...	125	233	995	505	407	173	104	...	...	8	11	8	58	...	4	2631
2	Park (part of)...... Trinity	1 7	296	1386	622	630	250	368	4	12	19	15	18	147	6	8	3898
3	St. Peter's .... Moorbrook	169	298	1159	182	272	338	145	...	...	6	2	21	125	...	6	2723
4	Christ Church ... Ashton	143	235	591	515	380	386	264	9	21	26	11	72	121	4	5	2783
5	St. John's .... Avenham	106	315	862	499	381	304	286	2	2	22	11	34	80	...	7	2911
6	Maudland..........	53	150	816	471	368	318	250	10	2	11	8	64	106	...	5	2632
	Totals	833	8328		9783				1187								20131

The School Medical Service.

The Medical Service Sub-Committee of the Education Committee:

November, 1928.

THE CHAIRMAN OF THE EDUCATION COMMITTEE (The Rev. Canon Morris).

THE VICE-CHAIRMAN OF THE EDUCATION COMMITTEE (Mrs. Councillor Pimblett).

THE CHAIRMAN OF THE HIGHER EDUCATION SUB-COMMITTEE
(The Rev. Canon Morris).

THE VICE-CHAIRMAN OF THE HIGHER EDUCATION SUB-COMMITTEE
(Mr. Councillor Collinson, M.D., F.R.C.S.).

THE CHAIRMAN OF THE ELEMENTARY EDUCATION SUB-COMMITTEE
(Mr. Councillor J. E. Adkins).

THE VICE-CHAIRMAN OF THE ELEMENTARY EDUCATION SUB-COMMITTEE
(Mr. Councillor Ley).

MR. ALDERMAN DURHAM.
MR. COUNCILLOR HOWARTH.
MR. COUNCILLOR PARTINGTON.
MR. COUNCILLOR FRANCIS.
MR. COUNCILLOR WARD.
JAMES YATES, ESQ.

J. J. RAWSTHORN, ESQ.
W. E. ATKINSON, ESQ.
MISS MCCOURTY.
MRS. MEGAHY.
MRS. HINDMARSH.

Officers.

Superintendent School Medical Officer: F. A. SHARPE, M.D., B.S., D.P.H.

Assistant School Medical Officers: ELIZABETH ROSE, M.B., Ch.B.,
J. CUMMING, M.R.C.S., L.R.C.P., D.P.H,

Dental Surgeons: E. HUTSON, L.D.S., R.C.S., Eng.; J. KNOWLES, L.D.S,

School Nurses: M. E. MARSDEN, A. BUTTERFIELD, D. G. KING,
G. WHALLEY, M. E. BOOTH, E. B. PILKINGTON.

Clerical Staff:

T. GRAY. M. CHAPMAN. G. C. RABY.

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TO THE
CHAIRMAN AND MEMBERS OF THE EDUCATION COMMITTEE.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to submit the Annual Report upon the Medical Inspection of School Children for the year 1928.

The form of the report has been slightly changed from that originally suggested by the Board of Education. In previous reports medical inspection and medical treatment have been treated separately with a result that to get a comprehensive view of any particular defect or disease one had to search in two different parts of the report. The present method, I think, is more satisfactory in this respect. The detailed work of the three clinics is no longer shewn separately but the tabular statements include summaries of the work done at each clinic, the detail being reserved for the work as a whole.

The report is divided into 14 sections, each illustrative of various phases of the work. In these sections the work is fully described and I can do no more here than call attention to the more salient features of them.

The sanitary condition of our schools is a matter of the greatest importance and has been the subject of a great deal of work on the part of your Committee.

There is a perceptible improvement in the hygienic conditions of life of the children, as indicated by the figures as to uncleanliness.

The scheme for the treatment of dental defects which was re-organised in 1925, has now reached the limits of its capacity. The question of providing further assistance and at the same time providing for the smaller needs of the Maternity and Child Welfare and Tuberculosis Services, now supplied on a part-time basis, is under your consideration.

The preventive treatment of crippling defects undertaken in the autumn of 1927 is reported upon for a whole year's working. The results are such as to give every promise of large savings in happiness and usefulness of the children treated. Artificial sunlight treatment, established in the spring of the year under review, has proved to be a useful auxiliary form of treatment for certain defined classes of debilitated children.

I have to thank the Medical, Dental, Nursing and Clerical Staff for their loyal and painstaking work and on their behalf and my own to thank the Committee for their consideration and support.

I am,
Your obedient Servant,
F. A. SHARPE,
Medical Officer of Health and
School Medical Officer.

Public Health Offices,
Tithebarn Street,
Preston,
May, 1929.

2.—CO-ORDINATION.

The Medical Officer of Health is the Superintendent School Medical Officer. Maternity and Child Welfare records of children reaching five years of age are passed on to the School Medical Service. There is constant interchange of information going on between the School Medical, Tuberculosis, Maternity and Child Welfare, and Public Health Departments.

A joint Sub-Committee has been appointed by the Maternity and Child Welfare and the Medical Service Sub-Committee, to consider the further co-ordination of the work done at present by these committees respectively.

3.—SCHOOL HYGIENE.

The sanitary condition of the Schools has been the subject of reports to the Committee and as a result, a survey of the Schools has been undertaken during the year by the School Buildings Sub-Committee.

A schedule of the various defects, classified as defects of a temporary character, defects due to wear and tear and defects of a structural nature, has been prepared. This I do not propose to produce here, but take this opportunity to make some general remarks and recommendations which may assist the Committee in formulating a policy.

Preston suffers from the defects of an old-established Educational system. Modern towns have erected Council Schools of a utilitarian and practical design. Preston has an heritage in old buildings founded by religious bodies with strong ecclesiastical leanings in their architectural style.

There are instances of schools with an open roof or without ceiling in which a large proportion of the upper space is occupied by still air and is " dead " as regards ventilation. We have arched stone windows where a large proportion of the lighting surface is absorbed by elaborate stone mullions in which the portion capable of being opened is insufficient for the purposes of ventilation, and in this latter respect, there are windows so high in the walls that an accumulation of dust or the breakage of a cord puts a summary end to their usefulness. There are rooms designed for some other purpose in regular use as classrooms. Few of our schools have properly designed and equipped cloakrooms so that the children's outer garments, wet and dry, clean and dirty, are huddled together with no opportunity for the refreshment that an airing in a properly spaced, warmed and ventilated room would provide. A point which may be discussed with the structural defects alluded to is the inadequate cleansing of the outside of the windows and the inadequate artificial lighting by old fashioned gas equipment. The damage to the eyesight of the children, the resultant cost of the treatment and the ultimate economic losses suffered by the body corporate is worthy of consideration.

The needs of the children as regards washing accommodation are not adequately met. From the educational and hygienic point of view there should be provided an ample number of basins, plentiful water supply together with soap and towels. The ideal system would include the provision of hot water.

Many playgrounds are inadequate as regards size, but what can be remedied is the defective condition of their surfaces. Cobbled surfaces with broken and dangerous patches and macadam, dusty in summer, muddy in winter, should be replaced by flags at least in the immediate neighbourhood of the entrance to the school buildings.

Many urinals are without satisfactory flushing arrangements.

The closets are mainly of the trough or Ducker type—an arrangement which would not be sanctioned in a modern house and which the Sanitary Authority is constantly endeavouring to get replaced in old houses by a pedestal w.c. There are in the Borough to-day 28,900 fresh water closets, 488 waste water closets and 14 trough closets, exclusive of those in schools and factories, so that the children find their schools less adequately equipped in this respect than their own homes. Attention too must be called to the lack of privacy in some of the closets by reason of the absence of doors, this applies with especial force in the case of senior departments.

Few schools have modern conveniences for the use of the staff.

The question of the provision of desks suitable to the age of the children is of the greatest importance from the point of view of the effects of bad posture upon their health.

New Schools erected in recent years :—English Martyrs', St. Gregory's, and The Blessed Sacrament (Roman Catholic), Frenchwood and Deepdale Modern (Council) are magnificent schools with a high standard of hygiene and equipment.

The Director of Education informs me that during the year alterations and repairs were carried out at the following Schools :—

> Hincksman Memorial, St. Matthew's Branch, All Saints', St. Mary's C.E., English Martyrs' Girls and Infants, English Martyrs' Central, Deepdale Council, St. Ignatius' Girls and Infants, St. Augustine's Girls and Infants, St. Saviour's Mixed and Infants, Eldon Street Council, St. Joseph's Boys and Infants, Holy Trinity, and St. James'.

The number of schools, their accommodation and average attendance for the year are as follows :—

	Number of Schools	Recognised Accommodation	Average attendance for year ended 31st March, 1928
Church of England ...	19	13478	6632
Roman Catholic	11	9958	5929
Nonconformist	6	2543	1895
Council	6	3024	2007
Total	42	29003	16463

The average attendance is 74 less than that of 1927, which was 82 more than that of 1926.

4.—MEDICAL INSPECTION.

Three age groups were examined during routine inspection in 1928. The entrants' group included all children who had not been inspected since their admission to School; the children in the intermediate group were 8 year olds, whilst those in the leavers' group were 12 or over.

The following were the numbers in each group :—

Entrants, 2485; Intermediate, 1584; Leavers, 1560.

A table giving the numbers medically examined in each group and otherwise during the last 5 years is as follows :—

	Year of Examination				
	1928	1927	1926	1925	1924
Entrants	2485	2432	2865	2157	1566
Intermediate	1584	1405	2780	1404	1676
Leavers	1560	1792	625	2070	1881
Special Cases (*a*) Clinic ...	*2742	2683	2907	2807	2458
(*b*) School ...	103	160	92	123	280
Re-inspections	1860	1689	2437	1717	266
Totals	10334	10161	11706	10278	8127

*This figure includes 222 children aged 12 and 13 examined for Juvenile Employment.

5.—FINDINGS OF MEDICAL INSPECTION.

The following paragraphs relate to the findings of the Medical Officers and Nurses at the Clinics and the routine inspections carried out at the schools.

The three following tables deal with the work performed at the Inspection Clinics. The Clinics are 3 in number, the principal Clinic being situated in the Miller Arcade. Comparison with previous years shows that the number of new cases seen is slightly less than that of last year, while the total attendances is increasing year by year.

The principal reasons for a visit are as in previous years, minor diseases of the skin, eye, ear, nose and throat. The largest group, other defects, relates to minor injuries and temporary minor ailments which do not appear in the classification.

Barlow Street suffices for the needs of roughly one-quarter of the cases, and the Open Air School for the needs of two Schools, Deepdale Council and St. Gregory's.

The time lost on account of exclusion certificates given by the Medical Officers was 83,843 school sessions, averaging 33 sessions per new case.

Inspection Clinics, 1928.

Defect.	On Books, 1st Jan. 1928.	New Cases.	Dis-charged.	Left on the Books 31st Dec., 1928.
Malnutrition	28	59	66	21
Uncleanliness—Head	2	1	2	1
,, Body	1	...	...	1
Skin Disease	38	227	230	35
Eye	3	357	358	2
Ear	26	192	206	12
Nose and Throat	31	271	275	27
Enlarged Glands	5	88	91	2
Defective Speech	...	...	...	...
Teeth	2	21	23	...
Heart and Circulation ...	26	42	48	20
Lungs	40	160	156	44
Tuberculosis—Pulmonary ...	6	8	9	5
,, Non-Pulmonary	5	15	13	7
Nervous System	19	23	25	17
Deformities	9	15	17	7
Other Defects	72	1041	1060	53
Total	313	2520	2579	254
Clinics: Miller Arcade	231	1785	1836	180
Barlow Street... ...	81	725	735	71
Open-Air School ...	1	10	8	3

Total attendances for the last 5 years :—

	Miller Arcade Clinic.	Barlow Street Clinic.	Open Air School	Total.
1928	4376	2417	43	6836
1927	4123	2138	145	6406
1926	4422	2280	...	6702
1925	...	...	...	6023
1924	...	...	...	4920

(a) Uncleanliness.

The number of children examined by the nurses for uncleanliness was 22,331, as compared with 21,837 last year.

The figures show a steady improvement in the right direction. In 1926 two-thirds of our elementary school children were absolutely clean, this can be said of three-quarters to-day.

There is a similar rapid decline in the numbers infested by a few nits, that is, the casual infections which must be borne by the children of even the most careful parents. These are by far the best figures we have had in the history of school medical inspection, and it is hoped in the future to obtain even greater improvements.

	1928.		1927.		1926.	
	No.	%	No.	%	No.	%
(1) Free from nits ...	16634	74.04	15083	69.1	12343	66.4
(2) Few nits	2999	13.43	3652	16.7	3835	20.6
(3) Many nits	2367	10.60	2667	12.2	1963	10.7
(4) Severe nits	319	1.42	408	1.8	390	2.1
(5) Verminous	12	0.05	27	0.12	34	0.18
Total number examined ...	22331		21837		18565	

No. examined during 1925, 19537.	No. requiring attention, 2898=14.83%.
No. examined during 1926, 18565.	No. requiring attention, 2387=12.85%.
No. examined during 1927, 21837.	No. requiring attention, 3102=14.2%.
No. examined during 1928, 22331.	No. requiring attention, 2698=12.08%.

(b) Minor Ailments.

The number of minor ailments seen at the Routine Inspections and re-inspections is practically negligible. The cases observed consisted of 4 ringworm, 5 scabies, 4 impetigo, 10 other forms of skin disease, 5 cases of blepharitis and 1 conjunctivitis. The remainder attended at the various centres at the instance of the Head Teachers or Parents.

The following tables classify the children attending according to the defect, Clinic attended, and number of attendances. Miller Arcade shows an increase in the number of new cases with a fall in the total attendances. Barlow Street—a fall in the new cases and an increase in the total attendances, and the Open Air School, a fall in both new cases and attendances. The total number of children seen is slightly higher than last year, with a slightly diminished number of attendances.

The average attendance for new cases is 12.

The principal diseases treated are contagious diseases of the skin, minor injuries and minor eye and ear defects.

Minor Ailments Treatment Clinics.

Defect.	On Books, 1st Jan. 1928.	New Cases.	Discharged.	Left on the Books 31st Dec., 1928.
Skin :				
Ringworm, Scalp and Body	18	134	142	10
Scabies	...	10	10	...
Impetigo	22	609	613	18
Other Skin Diseases ...	4	76	74	6
Minor Eye Defects :				
External and other, but excluding cases falling in Table IV., Group I.	16	441	435	22
Minor Ear Defects	52	215	210	57
Miscellaneous (*e.g.*, Minor Injuries, Bruises, Sores, Chilblains, etc.)	53	2194	2191	56
Total	165	3679	3675	169
Clinics : Miller Arcade	96	2757	2738	115
Barlow Street	49	763	778	34
Open-Air School... ...	20	159	159	20

Total attendances for last 6 years :—

	Miller Arcade		Barlow Street		Open Air School		Total	
	New Cases	Attendances	New Cases	Attendances	New Cases	Attendances	New Cases	Attendances
1928	2757	28511	763	11976	159	4128	3679	44615
1927	2530	30207	847	10155	224	4801	3601	45163
1926	2291	27494	760	8431	183	5371	3234	41296
1925	...	...	...	...	...	...	2653	33488
1924	...	...	...	...	...	...	2632	32233
1923	...	...	...	...	...	...	2092	31625

(c) Tonsils and Adenoids.

The number of children suffering from enlarged tonsils and adenoids was 318, the numbers in previous years being 378, 378, 453 and 297.

They occurred in the following groups :—

	No. examined	No. referred for treatment	%	No. referred for observation	%
Entrants—Boys ...	1219	67	5·49	62	5·08
Girls ...	1266	72	5·68	76	6·00
Intermediate—Boys	830	30	3·61	18	2·16
Girls	754	40	5·30	29	3·84
Leavers—Boys ...	783	37	4·72	11	1·40
Girls ...	777	29	3·73	16	2·05
Totals	5629	275	4·88	212	3·76

In addition to these, there were among the 1,860 submitted for re-inspection and the 103 special inspections, 43 cases of enlarged tonsils and adenoids recommended for treatment and 25 referred for further observation.

Including children brought in from the previous year and including those referred direct from the Medical Inspection Clinics, 492 children were recommended for In-patient operative treatment at the Preston Royal Infirmary.

Four hundred and twenty-two children received operative treatment at the Infirmary and 7, operative treatment at the hands of private practitioners.

One hundred and twenty-three children received some other form of treatment either at the Royal Infirmary, from private practitioners, or as the result of advice received at the Clinics.

Eighty-seven per cent. of those given recommends to the Infirmary were treated there by operations.

	1924	1925	1926	1927	1928
No. referred for treatment from :—					
(a) Routine Groups	214	383	304	311	275
(b) Re-inspection and Special Cases	57	70	74	67	43
No. recommended to Preston Royal Infirmary for operative treatment	303	395	504	530	492
No. operated on at Preston Royal Infirmary	284	276	461	531	422
No. operated on by private practitioners	19	16	23	13	7
Received other forms of treatment ...	67	125	222	96	123

(d) Tuberculosis.

From the returns it does not appear that active tuberculosis is a common condition amongst the school children.

With regard to pulmonary tuberculosis, 26 children were referred by the examining Officer to the Tuberculosis Department for an opinion. Of these, 6 were reported to be suffering from active tuberculosis and were dealt with by the Tuberculosis Department, the remainder were considered to be suffering from bronchitis and other non-tuberculous pulmonary disorders.

Eight children suffering from tuberculosis of the bones were treated in the Orthopædic department, either as out-patients or, through the Dispensary organisation as in-patients, in the various institutions.

(e) Skin Diseases.

Ringworm.

Skin diseases do not form a prominent feature of Routine Medical Inspection—only four cases of ringworm being found during the year. The majority of these defects are referred direct to the Minor Ailments Treatment Clinic, and in this way 134 new cases of ringworm were observed and treated, which is a decrease of 15 on last year's figure. Eighteen children were receiving treatment at the beginning of the year and 142 cases were discharged as cured during the period under review.

The treatment applied is very effective in the prevention of contagion, and, therefore, little school attendance is lost by children who suffer from this disease.

Treatment by X-Rays at the Royal Infirmary has been offered in several cases, but accepted in only four instances.

Scabies.

Five cases of this defect were observed at the Routine Medical Inspections, and altogether 10 cases attended the Clinic. All these were discharged during the year. Treatment by sulphur ointment and baths is successful when combined with strict home supervision by the School Nurse.

Impetigo.

This defect appears to be prevalent amongst school children and forms the biggest group of the skin diseases. The number of new cases attending the Clinic during the year, which is 609, compares favourably with that of 1927, which was 653, and, including 22 cases under treatment on the 1st January, 613 were discharged during the year as cured.

A great many of these cases are only of a minor character and only in a comparatively few instances is school exclusion found necessary.

In addition to the above specified diseases, 76 miscellaneous skin diseases attended the Clinics and were treated. These cases included eczema, dermatitis, herpes and other unspecified skin disorders.

Below is a table showing comparative figures for skin diseases. The figures given are the new cases treated during the respective years.

	Ringworm.	Scabies.	Impetigo.	Other Skin Diseases.
1925	98	7	431	25
1926	95	4	479	48
1927	149	7	653	67
1928	134	10	609	76

(f) External Eye Disease.

More cases of external eye disease required treatment in 1928 than in any former year, owing to an epidemic of conjunctivitis which prevailed during the autumn, for which no apparent cause could be found. At first, it was thought that attendance at the swimming baths might be the cause of the spread of infection, but the fact that a large number of the sufferers were young children refuted this idea and no real cause was discovered.

As in the case of skin diseases, most of these defects are referred direct to the Clinic, the numbers so referred during the year being 441. The corresponding figure for 1927 was 321. Only 10 cases were found at Routine Medical Inspection, and these were also referred to the Clinic for treatment. The total number of cases under treatment during the year was 457, and of these 435 were discharged.

A fair amount of exclusion from school amongst the children who suffered from conjunctivitis, was caused in an endeavour to check its spread.

The following figures show the extent of external eye disease during the last four years :—

1928	1927	1926	1925
441 ...	321 ...	218 ...	207

(g) Vision.

The number of children examined at the Schools in each of the two age groups tested, and the number of those found to have defective vision and/or squint are given in the following table :—

	Routine Medical Inspection.					
	No. examined		No. referred for treatment		Percentage referred	
	1927	1928	1927	1928	1927	1928
Intermediate Group—Boys ...	696	830	73	95	10·5	11·4
(aged 8—9) Girls ...	709	754	85	66	12·0	8·8
Leavers Group—Boys	900	783	122	91	13·6	11·6
(aged 12) Girls	892	779	134	103	15·0	13·3

The refraction work of the School Medical Service is carried out at the Miller Arcade Clinic, three sessions per week being devoted to this purpose.

	1926 (6 mths.)	1927	1928
No. of Sessions	60	126	123
Total New Cases	553	1138	933
Total Attendances	772	1936	1863
Average attendance per Session	13	15·5	15·2

Of the 933 new cases, 810 attended by appointment and 123 on their own initiative.

Eighty-seven per cent. of the appointments made, were kept as compared with 90% and 92% in previous years.

Eight hundred and twenty-eight refractions were carried out as compared with 908 in 1927. Of these, 676 received prescriptions for glasses as compared with 678 in the previous year. Nine hundred and five children attended for verification and review of spectacles prescribed at previous treatments.

Seventy-five children received treatment other than by prescription of glasses.

Thirteen children were treated by private practitioners and 17 at opticians.

Eighty-one per cent. of the new cases were found to require glasses. Five hundred and twenty-one or 77% of the children for whom spectacles were prescribed obtained them.

In 31 instances, where, by reason of poverty, the parents were unable to pay the whole or part of the cost, the glasses were obtained and the deficiency made good by the Education Committee.

(h) Ear Disease and Hearing.

At the Routine Medical Inspections, 19 children were found to be suffering from defective hearing, 43 from discharging ears and two from other ear disease. Including these, there were 215 new cases attending the Minor Ailment Treatment Centres. Of these, together with 52 children attending at the beginning of the year, 210 were discharged, leaving 57 under treatment at the end of the year.

The zinc ionisation treatment, which was fully reported upon last year, has been abandoned. After thorough trial, this form of treatment was not found to have any advantage over ordinary treatment by irrigation, peroxide installations, etc.

(i) Enlarged Cervical Glands (Non-Tubercular).

Thirty-five children were discovered to be suffering from enlarged glands in the neck, not associated with enlarged tonsils and adenoids and not regarded as tuberculous. Including these and others attending on their own initiative, 88 new cases were seen at the Medical Inspection Clinics. Most of these cases were due to some septic focus in the head and neck such as impetigo, septic sores, boils and septic teeth.

The treatment of these cases proved fairly simple, only two cases being under treatment at the end of the year.

(j) Dental Defects.

The number of children submitted for routine dental inspection was 7,896, as compared with 5,233 in 1927. Of these, 3,260 were found to require treatment, a percentage of 41.3 as compared with 51.5 in 1927. Among those found to require treatment 2,164 actually received it, a percentage of 66.4, compared with 1,763 and a percentage of 65.4 in 1927.

In addition to these routine groups 1,931 " casual " children attended. A " casual " is a child who attends for some dental emergency, i.e., toothache or abscess. They are mostly children of the older age groups not as yet included in the scheme, and also comprise those children who have been examined but have refused treatment. Although a number of children already in the scheme and undergoing annual treatment and re-treatment present themselves as casuals, it is very rare for them to do so in respect of the permanent teeth. The dental emergency in these children always relates to the milk or temporary teeth which are not treated in our scheme, except where necessary by extraction. The casuals supply the bulk of the extraction and gas cases.

In recent years, 1922-1927, the casuals have numbered 828, 952, 1,067, 1,134, 1,593 and 2,059 respectively. The immense increase of work in connection with both the routine groups of the scheme and with the casuals is

SUMMARY OF THE WORK OF THE DENTAL SURGEONS

For the Period January 1st to December 31st, 1928.

Routine Groups.

SCHOOLS VISITED	Number of Children Examined at School	No Treatment required	Number requiring Treatment	Number accepted Treatment	Number refused Treatment	Own Dentist	Particulars of Attendances and Work at Dental Clinic					
							Number attended Clinic	No. of Actual Attendances at Clinic	No. of Extractions	No. of Stoppings	No. of Dressings	No. of Scalings
St. Cuthbert's	...	...	...	2	...	...	...	...	...	...	...	...
St. Peter's	...	...	...	2	...	...	...	...	...	...	...	...
Roebuck St. Council	...	...	...	1	...	...	...	...	...	...	...	...
Talbot	...	...	...	20	...	...	...	...	...	...	...	...
Hincksman	...	...	...	2	...	...	...	...	...	...	...	...
St. Stephen's	...	...	...	5	...	...	...	...	...	...	...	...
St. Andrew's	...	...	...	5	...	...	...	...	...	...	...	...
Sacred Heart	...	...	...	4	...	...	...	...	...	...	...	...
St. Mark's	...	...	...	1	...	...	...	...	...	...	...	...
Deepdale Council	...	...	...	...	...	...	4	27	...	31	13	...
Talbot	...	...	...	...	...	...	18	29	1	43	7	...
St. Stephen's	...	...	...	...	...	...	2	2	...	4	...	...
St. Mary's C.E.	...	...	...	...	...	...	25	64	3	111	6	...
Ashton Wesleyan	...	...	...	...	...	...	5	32	19	62	...	...
Sacred Heart	...	...	...	...	...	...	9	22	4	43	2	...
Open Air, Physical Defectives	...	...	...	...	...	...	4	13	...	20	5	...
St. Andrew's	...	...	...	...	...	...	8	13	2	12	6	...
St. Matthew's	8	5	3	3	...	...	87	180	8	295	26	...
St. Jude's...	...	...	...	...	...	...	1	2	...	2	2	...
St. Michael's	72	25	47	39	5	3	42	88	...	143	24	...
Open Air, M.D. Special	...	...	...	...	...	...	215	470	8	111	11	...
St. Mary's Wesleyan	127	49	78	62	10	6	57	104	3	182	19	...
St. Luke's	196	80	116	93	13	10	100	258	9	390	45	...
St. Joseph's	477	290	187	164	14	9	163	290	33	520	53	1
St. Matthew's Branch	63	39	24	19	2	3	20	46	1	89	7	1
St. Saviour's	158	52	106	78	13	15	75	122	...	210	16	...
St. Augustine's	383	224	159	132	16	11	134	205	11	309	50	2
Ribbleton Avenue	170	77	93	68	14	11	66	112	2	218	16	1

St. Ignatius'	467	270	197	164	10	23	154	240	5	408	57	...
Grimshaw Street	196	98	98	63	4	31	25	70	...	133	26	...
Parish Church	174	111	63	51	2	10	51	109	1	167	28	2
St. Thomas'	238	164	74	59	12	3	53	80	...	143	22	1
Christ Church	179	105	74	56	5	13	51	75	1	127	20	...
English Martyrs'...	386	244	142	94	31	17	82	152	...	263	36	...
Orchard	59	26	33	22	1	10	18	35	...	42	11	...
St. Paul's	157	100	57	48	7	2	51	78	5	110	21	...
All Saints'	133	73	60	51	5	4	56	113	2	163	26	...
Moor Park Wesleyan	223	128	95	64	9	22	44	102	1	193	70	...
St. Wilfrid's	82	41	41	34	...	7	36	51	3	80	9	1
Holy Trinity	47	31	16	15	...	1	13	22	6	29	4	...
St. Peter's	159	112	47	26	14	7	22	35	4	63	8	...
Emmanuel	280	173	107	70	19	18	57	113	2	205	16	...
Talbot	396	224	172	127	28	17	114	147	5	301	38	...
St. Mary's R.C.	88	58	30	29	1	...	18	17	1	20	2	...
Roper's	92	51	41	39	2	...	34	56	8	71	12	...
Eldon Street	158	99	59	36	15	8	36	84	11	152	16	...
Roebuck Street	208	140	68	44	18	6	36	77	...	118	25	...
St. Gregory's	94	63	31	25	2	4	22	58	6	85	17	...
St. Stephen's	149	89	60	42	9	9	35	69	3	103	24	...
St. Jude's...	122	81	41	38	3	...	31	55	...	76	15	...
Deepdale Council	435	283	152	110	2	40	106	204	4	307	69	...
Hincksman	150	82	68	60	5	3	32	70	2	106	11	...
St. Cuthbert's	33	20	13	10	1	2	8	19	...	30	5	...
St. Andrew's	273	130	143	118	12	13	89	170	5	253	56	...
St. Mark's	228	164	64	33	13	18	25	44	3	52	14	...
St. Mary's C.E.	181	114	67	55	12	...	45	121	...	189	55	...
St. Matthew's	411	272	139	97	26	16	...	...	...	...	...	...
St. Michael's	84	56	28	24	4	...	...	...	...	...	...	...
Sacred Heart	115	53	62	30	16	16	...	...	...	...	...	...
Ashton Wesleyan	87	48	39	31	...	8	...	...	...	...	...	...
Open Air, Physical Defectives ...	136	84	52	52	...	...	44	110	2	166	32	2
Open Air, Mental Defectives ...	22	8	14	14	...	...	14	37	...	34	9	...
Routine Group Totals	7896	4636	3260	2531	375	396	2164	4218	150	6986	1062	11

CASUALS ATTENDING DENTAL CLINIC.

AGES	Number of Children Examined at School	No Treatment required	Number requiring Treatment	Number accepted Treatment	Number refused Treatment	Own Dentist	PARTICULARS OF ATTENDANCES AND WORK AT DENTAL CLINIC.					
							Number attended Clinic	No. of Actual Attendances at Clinic	No. of Extractions	No. of Stoppings	No. of Dressings	No. of Scalings
Aged 5	103	...	103	103	...	...	103	107	97	1	27	...
,, 6	310	...	310	310	...	...	310	328	341	56	41	...
,, 7	300	...	300	300	...	...	300	339	382	58	40	...
,, 8	307	...	307	307	...	...	307	370	447	55	35	...
,, 9	189	...	189	189	...	...	189	243	306	16	24	...
,, 10	157	...	157	157	...	...	157	205	244	15	40	...
,, 11	176	...	176	176	...	...	176	238	255	14	81	1
,, 12	134	...	134	134	...	...	134	202	214	23	70	...
,, 13	236	...	236	236	...	...	236	365	365	46	126	1
,, 14	19	...	19	19	...	...	19	31	29	9	21	...
Total Casuals	1931	...	1931	1931	...	...	1931	2428	2680	302	505	2

SUMMARY OF THE WORK CARRIED OUT DURING THE LAST TEN YEARS.

YEAR	Number of Children Examined at School	No Treatment required	Number requiring Treatment	Number accepted Treatment	Number refused Treatment	Own Dentist	PARTICULARS OF ATTENDANCES AND WORK AT DENTAL CLINIC.					
							Number attended Clinic	No. of Actual Attendances at Clinic	No. of Extractions	No. of Stoppings	No. of Dressings	No. of Scalings
1928 Routine Groups	7896	4636	3260	2531	375	396	2164	4218	150	6986	1062	11
Casuals	1931	...	1931	1931	...	...	1931	2428	2680	302	505	2
Total	9827	4636	5191	4462	375	396	4095	6646	2830	7288	1567	13
1927	7292	2537	4755	4018	408	329	3822	7015	4487	10348	1644	8
1926	5817	2230	3587	3034	261	292	2834	6280	1977	7735	2777	9
1925	2781	715	2066	1779	53	234	1718	4078	1006	4939	1537	44
1924	2534	637	1897	1649	87	161	1578	3554	1021	3898	1110	35
1923	2511	627	1884	1669	54	161	1551	3504	950	3738	1374	59
1922	2539	719	1820	1578	86	156	1539	3595	926	3786	1570	35
1921	2918	1047	1871	1570	42	259	1493	3760	731	3783	1909	15
1920	2597	1066	1531	1365	31	112	1334	3515	433	3047	3159	8
1919	1939	870	1069	986	26	34	1052	2442	497	1976	2238	4

apparent. During the year under review, we have had the advantage of the services of the school nurses in the dental "follow-up" work, which is now shewing results in an increased number of treatment acceptances. Up to the present the "refusals" are as follows. (1927 figures included for comparison) :—

	Aged 6	7	8	9
1927	30%	20.5%	29%	...
1928	23%	23.7%	21%	24%

During the year, each school was visited and all new children aged six were examined. Those who had been inspected and treated in previous years, now in age groups 7, 8, 9 and part of those in age group 10 were re-inspected. Six hundred and fifty-five of the latter groups required re-treatment.

The percentage of those requiring treatment was as follows :—

	Aged 6	Aged 7	Aged 8	Aged 9 & 10
1927...	32·6	58·6	65·1	—
1928...	24·1	33·5	46·6	46·8

It is seen here that there is a marked reduction at all ages. It is probable that the dental work done by the Maternity and Child Welfare Committee is responsible for some of the fall in the youngest group, and our own work for the fall at the older ages. The percentage remains high at eight and nine during which years the six year old molars (permanent teeth) show the greatest tendency to decay. For this reason the "casual cases" are largely derived from these age groups.

The number of children treated has been larger, but the average treatment required has decreased.

This is in contrast with casual cases where the numbers, as expected, have declined, but the amount of treatment, found to be necessary, has increased.

Gas administrations have also declined, 591 as compared with 631 and 434 in 1927 and 1926 respectively.

Your Committee have had under consideration the question of the best method of carrying out the increased work falling to the School Medical Service. There can be no doubt that periodic dental treatment of children is of the highest importance to their present and future health.

(k) Defective Speech.

One case of speech defect was discovered at the Routine Medical Inspection and referred for observation.

(l) Heart and Circulation.

Thirteen children with functional disease of the heart, that is, disorderly action or rhythm without permanent damage, were referred for treatment to their own doctors. Forty other children similarly affected were referred for further observation. Of the total, 14 were kept under observation at the Medical Inspection Clinic.

There were no cases of actual organic heart disease found in the groups examined at the Routine Medical Inspections, and only one such case was observed at the Clinic. In addition to these, there were 35 children found to be suffering from anæmia and referred for treatment by their own doctors and 2 referred for further observation. Of the total, 27 children were kept under observation at the Clinic.

Of the whole group of this class of case, 20 remained on the books at the end of the year.

The majority of these functional cases clear up under observation and treatment, some, however, proceed, and in due course will develop organic disease of the muscles or valves of the heart with the consequence of debilitated state of health, impairment of usefulness and activity, and a shortened expectation of life.

(m) Lung Diseases.

Grouping together bronchitis, acute and chronic, and other non-tuberculous diseases of the lungs, there were found to be 74 children who were referred to their own doctors for treatment, and 36 for observation at the Routine Medical Inspections. There were 160 children kept under observation at the School Clinic, of whom 44 remained under observation at the end of the year.

These children are mainly found amongst those who are badly nourished and those who come from poor homes where the standard of parental care is for one reason or another below the average. This group of diseases causes a great deal of anxiety to the School Medical Staff and the parents. A large number of them are found to be able to attend, and are admitted to, the Open Air School with very great advantage.

(n) Nervous System.

Epilepsy, Chorea and other nervous conditions as causes of defective health were not found at the Routine Medical Inspection. Twenty-three cases, including 13 cases of chorea or St. Vitus' Dance were kept under observation at the Clinic and 17 remained under observation at the end of the year.

It must be borne in mind that epilepsy of any degree of severity absolutely precludes school attendance for a long period, thus of the 10 mild cases known, eight are able to attend school and two are unable to attend. Of the six cases suffering from major epilepsy, five are unable to attend school and one is under treatment at a residential institution.

The 13 cases of chorea attending the Clinic for the first time in 1928 represent those children in which acute rheumatism has manifested itself predominantly as an infection of the nervous system. Only one of these cases showed organic heart disease as referred to in a previous section, but the remainder showed some derangement of function. Although chorea tends to disappear with suitable treatment and rest, it is incompatible with the mental and physical incitement called out by school attendance. It is extremely difficult to ensure proper medical treatment out of hospital except in those homes where good nursing can be provided. The rheumatic child, is unfortunately, more liable to second and third attacks than the non-rheumatic child is to a first attack, and each attack tends to affect those parts of the body, that is, the muscle and valves of the heart or the delicate lining membrances and cellular structure of the brain, which have previously suffered.

Some of the larger Authorities are providing residential hospital schools for this class of child.

(o) Crippling Defects.

Thirteen children were discovered at Routine Medical Inspection to be suffering from deformities due to rickets and 10 from deformities due to birth palsies, infantile paralysis and the like.

Fifteen children were under observation at one time or another at the School Clinics, but the total numbers known to the School Medical Service are 144 attending public elementary schools, 28 not attending school, and two at certified hospital schools.

Eighty-eight new cases attended the Orthopædic Clinic for the first time in 1928.

This Clinic was inaugurated in October, 1927, with one Surgeon's Clinic per month and one Nurse's Clinic per week. Owing to the pressure of work, the Clinic as from January, 1929, is held for a whole day (two sessions) for the Surgeon's Clinic each month, and a whole day for the Nurse each week.

The 88 new cases are classified as follows :—

Infectious conditions :—	
Anterior Polio Myelitis	17
Osteo Myelitis of Leg	1
Pathological dislocation of Hip	1
Tuberculosis—Spine	2
Knee	1
Leg	1
Ankle	1
Heel	1
Hip	1
Elbow	1
Deficiency diseases :—	
Rickets (general)	1
Genu Valgum	4
Genu Varum	2
Chest	1
Congenital Diseases :—	
Achondroplasia	1
Cleft Palate	1
Deformity, Chest	1
Dislocation, Hip	4
Malformation of Thumbs	1
Shortening of Leg	1
Talipes Equino Varus (Club Foot)	8
Injuries —	
Leg	1
Old fracture, Elbow	1
Injuries at Birth :—	
Cerebral Diplegia Paralysis Arms and Legs)	1
Erb's Paralysis	6
Hemiplegia (Paralysis one Arm, one Leg)	10
Torticollis (Wryneck)	1
Late Hereditary Defects :—	
Friedreich's Ataxia	1
Frolech's Syndrome	1
Postural Defects :—	
Hammer Toes	2
Flat Feet	1
Kyphosis of Spine	2
Scoliosis of Spine	9

The Surgeon and Nurse held 12 sessions, the Nurse alone 34 sessions.

Of the new cases, 41 were boys and 47 girls. Ninety-seven boys and 97 girls were re-examined by the Surgeon.

At the Nurse's sessions, 364 children attended for remedial exercises, 30 to be measured or fitted with splints, 10 to be fitted with plaster jackets, and 50 for instructions and general review of case.

Of the 755 total attendances, 88 were those of new cases, 194 were reviews by the Surgeon and 473 were reviews by the Nurse.

Sixty-eight of the new cases were the responsibility of the Education Committee, eight of the Tuberculosis Committee, and 12 of the Maternity and Child Welfare Committee. The total attendances upon which the allocation of expense is made were 562, 48 and 145 respectively.

The attendances were spread out evenly throughout the year with a pronounced excess in the months of September, October and November.

Splints.

Fifty-two children were fitted with splints and appliances. These have a wide range and consist of iron and leather splints, spinal frames and specially designed boots and attachments to boots for deformities.

Some of these appliances are purchased from firms specialising in this kind of work; the bulk, however, are obtained at special rates from the workshops attached to Orthopædic Hospitals such as the Shropshire Orthopædic Hospital, Leasowe Open Air Hospital and the Wingfield Orthopædic Hospital.

The following figures will give an indication of the proportion of cost borne by the Authority and parents respectively.

Thirty splints and appliances taken consecutively from our list cost the Authority £27 9s. 4d. On comparison of the income with a scale, it was decided that the parents should pay £10 17s. 6d. or 39% of the total. Of this amount £9 12s. 0d. has been paid in, leaving £1 5s. 6d. outstanding.

The following treatment other than that described above was also given:

David Lewis Northern Hospital, Liverpool.

Five girls and one boy, all over the age of 12, were recommended for admission. Five were admitted and one remained on the waiting list at the end of the year, four were discharged and one remained in hospital. The average length of stay of discharged cases was 12 days.

Of the four completed cases, two parents paid the whole charges themselves. The total cost to the Committee was £8 15s. 0d. to which the parents contributed £1 0s. 0d.

Liverpool Children's Hospital, Heswall.

Eight children (five boys and three girls) were admitted to this Residential Hospital School. Five children (four boys and one girl) were discharged and three (one boy and two girls) remained under treatment.

The average length of stay of completed cases was 111 days. The total amount paid to the Hospital in respect of these cases was £256 10s. 0d. towards which parents contributed £9 11s. 6d. of the £18 9s. 0d. directed to be paid by the Committee. One of the five cases was paid for entirely by the Committee, in two cases the total contributions requested by the Committee, viz., 5s. per week, were paid by the parents, and in two instances payment ceased after a few contributions.

Liverpool Children's Hospital, Myrtle Street.

Eighteen children were sent, mainly for out-patient treatment, and, in some instances, in-patient treatment for a few days. Their attendance at this Institution was required by the Orthopædic Surgeon for the purpose of manipulation and plaster, 10 cases; X-Ray examination eight instances, and one for operative treatment.

The total cost of this treatment was £46 7s. 0d. The Committee have not requested parents to make any contribution towards this service, but 12s. was voluntarily offered.

This highly successful addition to our preventive work has been assisted greatly by the efforts of the Preston Ladies Voluntary Workers' Committee who have actively helped the organisation by their work on the social side.

(p) Light Therapy.

An Artificial Sunlight Clinic was established at the Open Air School in March, 1928. The lamp used is a double quartz mercury vapour lamp of the Jesionek type which is, for our purpose, more suitable than the carbon arc lamp. Two clinics are held weekly. Many of the children selected by the Assistant School Medical Officer are already attending the Open Air School, the remainder are recommended either from the Routine Medical Inspections at the schools or from the Medical Inspection Clinics. As from April 1st, 1929, the scheme has been enlarged so that suitable children under school age may be referred to the clinic for treatment by the Maternity and Child Welfare Department.

When a child is recommended for treatment and is considered suitable to receive it, one full course is given. Should the Medical Officer decide that further treatment is necessary, then the patient is given a second course. One full course consists of 10 exposures at 30″ distance from the lamp, the whole body being irradiated. The length of time of the exposures is 2, 4, 6, 8, 10, 15, 15, 15, 30 minutes respectively. The initial dose is arrived at after careful skin tests. The course for babies begins with a one minute exposure and then increases as for school children. The actual irradiations are supervised by the nurse, the children being seen by the doctor the following day when the duration of the next exposure is prescribed. Careful records are kept of any irregularities in the child's condition and of the weight and skin changes. Though it is perhaps early to pass an opinion on the usefulness of the lamp, it can be said that our findings are similar to the results obtained by the majority of other observers. The conditions most amenable to treatment are rickets, glandular tuberculosis and general debility. Our results in the cases of chorea and anæmia were not so successful as some observers have reported, for, although the children looked better and healthier, little change was found on examination. Bone lesions quickly heal in the case of rickets, and in the case of glandular tuberculosis, though the number of exposures varies greatly in each case, the ultimate results are exceedingly good. As regards general debility, the parents seem enthusiastic about the success. That the child is often much more energetic and in better health after a course of sunlight cannot be denied. The original physical defect of growth is, however, still present. Artificial sunlight seems able to supply that vim and fire which is required in this type of case.

In the treatment of ringworm we found the lamp most useful in the microsporon suppurating type where three out of the four cases submitted were cured. None of the large spored type were cured. The exposures in these cases consisted of 2, 4, 4, 8, 8 minutes with the lamp at 18″. The irradiation was local, the child's head being covered with brown paper into which holes had been cut corresponding with the infected areas.

One cannot be surprised at the poor success obtained in the treatment of bronchitis since half-an-hour's exposure to artificial sunlight followed by a walk home in a fog or in a damp smoke-laden atmosphere is not inducive to respiratory improvement.

Only two cases were found where the patient was unable to take the treatment. In each case the first exposure was followed by adverse symptoms which were not reported by the parents to the doctor. A second exposure had similar but more pronounced ill-effects which rapidly passed off on cessation of treatment.

Although artificial sunlight will not accomplish all that the public have been led to expect, there is no doubt there are many conditions in school medical work which benefit by its employment and it is an undoubted asset to the medical equipment.

One hundred and five children (50 boys and 55 girls) underwent a course of treatment. Including the two children who were adversely affected, there were 14 (13.3%) who did not complete the course. Fourteen children remain under treatment and there are 50 children on the waiting list.

Seventy sessions were held with an average attendance of 12.

The conditions for which the children were treated were as follows :—

	Girls	Boys	Total
General Debility	10	16	26
Bronchitis	9	10	19
Anæmia	8	6	14
Tuberculous Glands in the Neck	6	2	8
Other Tuberculous Conditions	5	9	14
Ringworm	4	4	8
Chorea	3	5	8
Rickets	1	3	4
Marasmus	1	...	1
Chilblains	3	...	3
Totals	50	55	105

Supplementing the general impressions of the scope of light therapy we found that 52% of the children gained weight (average gain 24 oz.), 12% of the children lost weight (average loss 14 oz.), and 36% were stationary. These figures may be taken as rough approximations of the percentage of selected cases in which good results may be looked for.

6.—INFECTIOUS DISEASES.

Notifiable infectious diseases as they affect school children are treated fully in the Annual Report of the Medical Officer of Health. In addition to the information received from medical practitioners as to legally notifiable diseases there is a large group of " minor " infectious conditions some of which cause loss of school attendance, serious illness and, in the case of whooping cough and influenza, a mortality which makes a perceptible mark upon the vital statistics. These diseases are whooping cough, mumps, chicken pox and influenza. The system by which early information as to these diseases is obtained is by way of notification by the head teachers to the Director of Education of the disease as the cause of or the suspected cause of absence from school of the children notified. The lists so obtained are transmitted to the Medical Officer of Health and the cases visited by the health visitors. The list of children so verified and amplified by the discovery of other children attending the particular school concerned are returned to the Director. The value of this work lies in the opportunity given to the staff for direct health teaching as to the nursing treatment of the patient, the importance of medical advice in the case of complications and the best means to take for the avoidance of the spread of infection. It also enables them to put the household in immediate touch with those charitable and public agencies which exist for their benefit.

In 1928, the principal infectious illnesses suffered by children attending public elementary schools were Mumps, Chicken Pox, Whooping Cough and Scarlet Fever. There was, practically speaking, no Measles, 11 cases compared with 853 last year, 284 cases of Mumps compared with 55 last year, 240 cases of Chicken Pox compared with 75 last year, and 90 cases of Scarlet Fever compared with two last year. There were 24 cases of Influenza compared with 1,132 in 1927.

St. Andrew's and Roebuck Street Council with 49 and 63 cases of Whooping Cough respectively, accounted for more than half the total notified. Roebuck Street, St. Walburges and St. Mark's together accounted for more than half the cases of Chicken Pox. St. Augustine's, Ashton Wesleyan, English Martyr's and St. Jude's experienced the heaviest infections by Mumps.

School closure was not resorted to in any instance. Certificates under Schedule 4, Rule 23 of the Code of Education, certifying that the average attendance had fallen below 60% were issued in respect of St. Andrew's Infants' School for the weeks ending October 12th, 19th, 26th, and November the 2nd, 9th and 16th; 45 such certificates were issued during 1927.

Cases of Infectious Disease Reported by Head Teachers.

SCHOOL.	Scarlet Fever	Measles	Whooping Cough.	Diphtheria.	Chicken Pox.	Mumps.	Ringw'rm Eczema, Sore Eyes Heads, &c.	Influenza.
Parish Church	...	...	...	...	...	...	...	..
St. James'	...	...	...	...	...	...	...	...
St. Augustine's	6	...	4	...	...	22	1	...
St. Saviour's	...	...	...	...	...	...	...	...
Grimshaw Street	...	...	...	...	...	...	...	...
St. Stephen's	2	...	1	...	4	13	5	9
Christ Church	2	...	...	1	...	...	...	...
Hincksman Memorial	1	...	...	1	15	...	...	...
St. Mary's R.C.	10	1	...	1	16	9	2	...
St. Wilfrid's	4	1	1	1	5	...	...	...
St. Michael's	...	...	3	...	2	8	...	1
Sacred Heart	5	...	11	...	1	13	...	...
Ashton Wesleyan	...	...	...	...	1	20	4	...
St. Andrew's	3	1	49	1	7	12	5	...
Roebuck Street Council	5	...	63	1	30	12	16	1
St. Walburge's	3	...	4	...	56	7	3	...
St. Mark's	5	...	2	...	25	1	...	...
St. Peter's	4	...	1	...	4	5	...	...
Emmanuel	5	...	10	1	4	...	...	...
St. Cuthbert's	...	...	6	...	...	...	...	...
Eldon Street Council	9	...	...	...	1	...	...	...
Moor Park Wesleyan	...	...	...	...	16	5	1	...
English Martyrs' Elementary	...	...	2	1	15	36	1	3
St. Jude's	1	8	9	...	7	25	1	...
Deepdale Council	...	...	...	...	3	5	...	...
St. Paul's	...	...	...	...	...	1	1	...
St. Ignatius' Elementary	9	...	...	...	7	19	...	...
All Saints'	...	...	10	...	2	16	2	...
Holy Trinity	2	...	...	...	2	7	...	...
Orchard U.M.F C.	...	...	1	...	...	...	...	...
St. Luke's	...	...	1	1	7	...	...	1
St. Joseph's	...	...	...	...	...	...	...	...
St. Matthew's	2	...	2	1	...	10	2	...
St. Matthew's Branch	1	...	2	...	...	13	2	...
Ribbleton Avenue	1	...	...	...	...	...	...	...
St. Mary's National	...	...	...	...	...	...	...	...
St. Mary's Street Wesleyan	1	...	...	...	1	3	...	8
St. Thomas's	2	...	...	...	1	...	...	...
Open Air School	...	...	3	...	2	...	...	1
St. Gregory's	...	...	3	...	...	3	...	...
	83	11	188	10	234	265	46	24
SECONDARY SCHOOLS.								
Park Secondary School	7	...	...	...	6	19	...	...
Catholic Convent	...	...	...	...	...	...	...	...
Catholic College	...	...	...	...	...	...	...	...
Preston Grammar School	...	...	...	...	...	...	...	...

7.—FOLLOWING UP.

Seven thousand five hundred and one visits were paid by the nurses with regard to the defects found at the Medical Inspections.

This compares with 7,325 in 1927.

The principal causes for a visit are Uncleanliness (2,623), Dental defects (1,846), Enlarged Tonsils and Adenoids (1,207) and Defective Vision (1,113).

A striking fact with regard to the two latter conditions which is illustrated in the annexed table is the large number of repeat visits required before the nurse is able to get the defect remedied. In only a certain small proportion of cases, especially those relating to the operative treatment of Tonsils and Adenoids, do the nurses visits fail to achieve the desired object. In 16 instances where the child's health was obviously suffering, the co-operation of the inspector of the National Society for the Prevention of Cruelty to Children was successfully sought. The group, Miscellaneous, in the table, relates to visits paid to children who have failed to keep their appointments at the Minor Ailments Treatment Centres and Inspection Clinics, in respect of defects which do not appear in the classification, and the group, Special, relates to visits paid in regard to collaboration with social agencies, such as the issue of coals from King Fuad's Fund, seaside holidays and enquiries relating to children discharged from the Open Air School.

HOME VISITING BY NURSES. VISITS AND RE-VISITS.

Visit	Tonsils & Adenoids	Vision & Squint	Bron-chitis	Cardiac Defects	Eye Diseases	Skin Diseases	Enlarged Glands	Ear Diseases	Dental Defects	Unclean-liness	Miscell-aneous	Special	Total
1st	436	395	54	19	4	15	17	49	1555	2623	108	350	5625
2nd	248	218	12	8	...	1	8	9	207	...	15	2	728
3rd	146	150	6	3	...	1	2	2	67	...	4	...	381
4th	99	125	3	5	...	...	2	1	12	...	2	...	249
5th	81	79	...	2	...	...	1	1	3	...	2	...	169
6th	47	63	...	...	...	...	...	...	2	...	1	...	113
7th	36	40	1	1	...	...	1	...	...	...	...	...	79
8th	29	15	...	...	...	...	...	...	...	...	...	...	44
9th	16	11	...	...	...	...	...	...	...	...	...	...	27
10th	18	5	...	...	...	...	...	...	...	...	...	...	23
11th	10	2	...	...	...	...	...	...	...	...	...	...	12
12th	9	6	...	...	...	...	...	...	...	...	...	...	15
13th	7	1	...	...	...	...	...	...	...	...	...	...	8
14th	6	3	...	...	...	...	...	...	...	...	...	...	9
15th	6	...	...	...	...	...	...	...	...	...	...	...	6
16th	6	...	...	...	...	...	...	...	...	...	...	...	6
17th	1	...	...	...	...	...	...	...	...	...	...	...	1
18th	4	...	...	...	...	...	...	...	...	...	...	...	4
19th	2	...	...	...	...	...	...	...	...	...	...	...	2
Total ...	1207	1113	76	38	4	17	31	62	1846	2623	132	352	7501

8.—OPEN AIR SCHOOL.

The general arrangements at the Open Air School at Moor Park have been fully discussed in recent Reports.

The work with regard to the mentally defective section is discussed in a subsequent paragraph on page xxxiv.

The orthopædic and artificial sunlight work carried out at the Open Air School is discussed on pages xxii *et seq.*

The tables annexed to this paragraph show that the school has been used to its utmost capacity. The waiting list for admission to the school has never been below 20. The number admitted (102) is considerably less than in 1927 (129). The average period of attendance is one year and two months.

The principal cause for admission as in former years is debility, malnutrition and non-tuberculous pulmonary diseases.

Of the children discharged, 52 were regarded as fit to attend an ordinary public elementary school, and 16 were over 14 years of age and fit for work, that is to say, 71% of the children admitted were at the time of discharge in reasonably good health. This figure compares favourably with the figures for the preceding three years which have been 70%, 60% and 55%.

In addition to the Minor Ailments Treatment Centre carried on at the Open Air School, there were 102 children examined on admission, 305 special examinations and 341 re-examinations.

Seven thousand two hundred and twenty-four baths were given at the school during the year, 4,389 to the children attending the department for physical defectives, and 2,835 to those attending the department for mental defectives. Every child in both departments is bathed weekly.

One would like to call attention to the great value of this school to the physically defective child, especially to those living in the poorer parts of the town where a regular supply of good food is not obtainable and where the home conditions and environment are inimical to good health and well-being. Another point of importance is the fact that children whose attendance at the ordinary public elementary school has been irregular and infrequent are able, after a short time at the school, to attend with commendable regularity.

The regime at the Open Air School is really quite simple; education in the fresh air is provided to children who are regularly washed, fed and rested.

OPEN AIR SCHOOL, 1928.

	Boys	Girls	Total
No. on books, Jan. 1st, 1928	70	61	131
No. on books, 31st Dec., 1928	76	61	137
No. admitted during year	55	47	102
No. discharged during year	51	45	96
Average No. on roll	74	73	147
Average attendance	62	57	119
Average period of attendance of those discharged in 1928	...	...	1 yr 2 mths.

ANALYSIS OF REASONS FOR ADMISSIONS.

	Boys	Girls	Total
Eczema	1	...	1
Anæmia	7	6	13
Asthma	...	1	1
Bronchitis	12	7	19
Cardiac	2	4	6
Chorea	3	2	5
Debility	19	15	34
Diarrhœa	1	...	1
Dyspepsia	1	...	1
Pre-Tuberculous	4	2	6
Rheumatism	1	...	1
T.B. bronchial glands	...	2	2
T.B. cervical glands	2	5	7
T.B. Spine	...	1	1
Non-active pthysis	1	1	2
T.B. enteritis (old case)	1	...	1
Epilepsy	...	1	1
All reasons	55	47	102

ANALYSIS OF REASONS FOR DISCHARGES.

Reasons for Discharge	Boys	Girls	Total
Fit to attend former school	32	20	52
Unfit to attend any school	6	7	13
Over school age (14) : (*a*) Fit	8	8	16
(*b*) Under T.O.	...	1	1
Removed by parent	3	4	7
Left the district	2	4	6
Epileptic, unfit for O.A.S.	...	1	1
All reasons	51	45	96

9.—PHYSICAL TRAINING.

In the case of Secondary Schools, physical training and organized games form an important part of the curriculum and are taught by specially qualified teachers. They also have adequate premises, apparatus and playing fields. In the case of the elementary schools the physical culture is undertaken by the teachers who deserve the highest possible praise for their work which is performed under somewhat discouraging circumstances.

10.—PROVISION OF MEALS.

There were two centres engaged in providing free meals to poor children during the year—Marsh Lane and Glover's Court. 37,825 meals were provided for 260 children, in 1927 the numbers were 41,079 meals and 338 children, and in 1926 56,226 meals and 431 children.

11.—SCHOOL BATHS.

The swimming baths available for children are Saul Street, Moor Park, Waverley Park and Haslam Park. The number of attendances was 5,496, compared with 12,125 in 1927 and 16,527 in 1926. The reason for the decline in 1927 was the considerably cold summer, and in 1928 preparations for the Pageant.

12.—CO-OPERATION.

A successful School Medical Service depends upon the co-operation and goodwill of the parents, the teachers and the staff of the Director of Education.

The parents' interest in the service is very apparent at the School Clinics, especially Special Clinics, i.e., the Orthopædic, Artificial Sunlight and Refraction. In the newer Schools where special rooms are provided for medical inspection and there is suitable accommodation for the parents, we are trying to arrange for the attendance of parents at the inspections.

A personal interview at the time of inspection between doctor and parent is more impressive than a letter; it enables explanations to be given about the defects discovered and should result in greater attention being paid to the child's welfare.

The head teachers have rendered their accustomed cordial assistance. In many instances it is difficult for them to arrange for accommodation and the dislocation of their normal working is at times an embarrassment. Our cordial thanks are due to them for their continued courtesy and kindness.

I am glad to acknowledge that the co-operation between the officers of the School Medical Service and the officers of the Director of Education, so essential for smooth working, has been forthcoming at every point.

I should also like to thank the Preston Ladies Voluntary Workers' Association for their help on the social side in the working of the Orthopædic Clinic.

13.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

Mental Deficiency.

Forty-five children were examined during the year. The method used is the Stanford Revision of the Binet Simon Test. Two children were proved to be idiots, that is to say, " persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers."

Two children proved to be imbeciles, that is to say, " persons in whose case there exists from birth or from an early age mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so." These four children were notified to the Lancashire Asylums Board.

Twenty-five children were assessed as feeble-minded, that is to say, " persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision and control for their own protection or for the protection of others, or, in the case of children, that they, by reason of such defectiveness, appear to be permanently incapable of receiving proper benefit from instruction in ordinary schools."

In this group of children the Intelligence Quotient, that is to say, the mental age as compared with the actual age and expressed as a percentage of the latter, ranged from 47% to 94%. The bulk of these children, however, ranged between 70% and 80%. Many of the children in the higher percentages were found to be suffering from some physical defect such as enlarged Tonsils and Adenoids, Deafness and Defective Vision which would act as mechanical hindrances to education and which, remedied, would place these children on a level with the ordinary child.

This latter group of children were recommended for the Open Air Special School for Mentally Defective Children.

The remainder—16 children—with an Intelligence Quotient ranging from 60 to 102 were for the main part dull and backward or suffering from some physical defect which disguised their mental ability. They were directed to attend the ordinary public elementary schools.

Education of mentally defective children differs entirely from that provided for normal children. It is personal, and, to a great extent, handicraft in character.

Under the able guidance of the Headmistress the children have been happily engaged in the production of really beautiful and useful articles :— raffia-work, rush-work, rug-making, basket-work, carpentry, sewing, clay modelling and gardening form the basis of their work.

During the year 19 children were admitted as compared with 26 last year, 31 left and 73, consisting of 43 boys and 30 girls, remain on the books as compared with 88 at the beginning of the year.

Although the Authority can legally enforce the attendance of children certified to be mentally defective at a Special School and their continued attendance up to 16 years of age, this power is not used at present.

Twenty-four of the 31 children leaving, were 14, one was aged 15 and one 16. Three children left this district, one was transferred to a Residential School and one found to be ineducable.

There were 72 children re-examined during the year.

In addition to the foregoing, there were at the end of 1928, three girls at Allerton Priory and one boy at Pontville.

Blind Children.

Two children were referred to the Ophthalmic Surgeon and found to have insufficient vision to enable them to be taught in an ordinary elementary school and were referred to the appropriate special schools.

At the end of the year there were three boys and six girls in the Blind Home, Fulwood, and one boy each in the Blind Home, Liverpool, and the College for the Blind, Norwood, London.

Deaf and Dumb Children.

During the year there were five boys and two girls at the Royal Cross School for the Deaf and Dumb, and two boys and one girl at the Boston Spa Home for the Deaf.

Epileptic Children.

These children have already been reported upon in paragraph 5(n).

14.—SECONDARY SCHOOLS.

The Catholic Convent, Lark Hill, was added to the four Secondary Schools already receiving systematic medical inspection.

The total numbers examined, 1,720, show an increase over the number examined last year, 1,381, by 239. Part of the increase is accounted for by the inclusion of Lark Hill Convent, 157, and the remainder by an increase in the numbers examined at the Park School plus 93, Grammar School plus 113, the Catholic College plus 19, and a decrease of 43 in the number presented at the Winckley Square Convent.

An examination of the succeeding tables will show that the number of children with dental defects far out-weighs any other single defect. Defective vision and defects of the nose and throat are the next outstanding findings of the Medical Inspectors.

In the case of the two categories last-named, the following up system adopted by the headmasters and mistresses is as reasonably perfect as one could hope for. I am not satisfied, however, that the children suffering from defective teeth receive the same careful attention as children attending the elementary schools. With notable exceptions, parents tend to provide dental treatment only when pain compels it, and the treatment is too much by extraction and too little by conservation.

The financial position of many of the parents, and particularly the parents of children holding free places, forbids recourse to the expensive preventive dentistry which their condition warrants.

The table showing the number of defects expressed as percentages in the various schools show that the boys occupy a comparatively favourable position. The Catholic College show a very marked reduction in their percentage of defects from 67.8 to 36.7, the items subject to the largest reduction being defective teeth and tonsils and adenoids.

The Grammar School have again succeeded in actually lowering their percentage of total defects (from 22 to 14). The comparatively high figures at Lark Hill Convent are confidently expected to be reduced after another year of inspection.

MEDICAL INSPECTION AT SECONDARY SCHOOLS.

Number of children examined.

Ages	7	8	9	10	11	12	13	14	15	16	17	18	19	Total
Schools														
GIRLS :														
Park School	...	...	2	18	70	114	130	131	82	42	15	8	1	613
Winckley Square Convent ...	...	...	...	9	23	57	35	41	30	25	11	1	...	232
Lark Hill Convent	...	7	8	10	13	27	31	21	17	8	14	1	...	157
BOYS :														
Grammar School	1	5	11	19	42	62	85	82	74	35	13	6	...	435
Catholic College	...	...	1	18	61	55	48	45	29	15	9	2	...	283
Totals	1	12	22	74	209	315	329	320	232	125	62	18	1	1720

RETURN OF DEFECTS.

Ages	7	8	9	10	11	12	13	14	15	16	17	18	Total Defects
Malnutrition	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin Diseases	...	...	...	1	3	2	...	1	2	2	3	...	14
Eye Diseases	...	1	...	9	15	18	13	28	17	6	2	...	109
Ear Diseases	...	...	...	3	1	5	1	4	2	1	1	1	19
Nose and Throat Diseases ...	...	...	...	3	9	12	14	12	4	9	2	...	65
Enl. Cervical Glands ...	...	...	...	1	...	...	2	2	1	...	1	...	7
Defective Speech	...	...	...	...	...	1	...	...	...	...	...	...	1
Dental Defects	...	7	8	22	54	85	57	60	46	29	4	4	376
Heart and Circulation ...	...	...	...	2	2	2	2	5	5	4	...	...	22
Lung Diseases	...	...	...	...	...	1	2	...	1	...	1	...	5
Pulmonary Tuberculosis ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Non-Pulmonary Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...
Nervous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
Deformities	...	...	...	...	...	1	...	5	3	...	...	...	9
Other Defects	...	1	...	2	4	3	6	7	2	1	2	...	28
Total Defects	...	9	8	43	88	130	97	124	83	52	16	5	655

DEFECTS AS PERCENTAGES OF NUMBERS EXAMINED.

Defect	Park School	Winckley Square Convent School	Lark Hill Convent School	Grammar School	Catholic College	Totals
Malnutrition ...	...	...	...	...	...	...
Skin Diseases ...	1·63	0·4	1·27	...	0·3	0·81
Eye Diseases ...	6·69	3·4	2·55	4·37	13·1	6·3
Ear Diseases ...	1·14	0·8	3·82	0·23	1·4	1·1
Nose and Throat ...	4·57	3·8	9·55	0·92	2·8	3·7
Cervical Glands ...	0·33	...	3·18	...	...	0·40
Defective Speech ...	...	0·4	...	...		0·06
Teeth	30·83	34·4	26·11	8·51	10·6	21·8
Heart & Circulation.	1·63	...	3·82	...	2·1	1·2
Lungs	0·33	...	1·27	...	0·3	0·3
Tuberculosis ...	...	...	...	...	...	...
Nervous System ...	...	...	...	...	...	...
Deformities ...	1·14	...	...	...	0·6	0·5
Other Defects ...	0·16	...	7·64	...	5·3	1.6
Total defects ...	48·45	43·5	59·24	14·02	36·7	38 08

STATISTICAL TABLES

prepared for the Board of Education.

TABLE I.

Return of Medical Inspections, 1st January to 31st December, 1928.

A.—Routine Medical Inspections.

	No. of Code Group Inspections		Total
	Boys	Girls	
Entrants	1219	1266	2485
Intermediates	830	754	1584
Leavers	783	777	1560
No. of other Routine Inspections ...	...	...	...
Total	2832	2797	5629

B.—Other Inspections.

	Boys	Girls	Total
No. of Special Inspections...	49	54	103
No. of Re-inspections ...	970	890	1860
Total	1019	944	1963

TABLE II.

Return of Defects found by Medical Inspection in the year ended 31st December, 1928.

DEFECT OR DISEASE.		ROUTINE INSPECTION		SPECIAL INSPECTIONS	
		NO. OF DEFECTS.		NO. OF DEFECTS.	
1		Requiring Treatment 2	Requiring to be kept under observation but not requiring Treatment 3	Requiring Treatment	Requiring to be kept under observation but not requiring Treatment 5
Malnutrition		...	...	...	...
Uncleanliness	Head	...	...	...	...
,,	Body	...	...	...	...
Skin	Ringworm, Scalp	3	...	...	...
	,, Body	1	...	...	...
	Scabies	5	...	...	...
	Impetigo	4	...	...	...
	Other Diseases (non-tubercular)	10	...	...	...
Eye	Blepharitis	5	...	...	...
	Conjunctivitis	1	...	...	...
	Keratitis	...	...	...	...
	Corneal Opacities	...	...	...	...
	Defective Vision	351	35	53	1
	Squint	28	...	10	...
	Other Conditions	1	...	3	...
Ear	Defective Hearing	14	2	3	...
	Otitis Media	42	...	1	...
	Other Ear Diseases	2	...	...	...
Nose and Throat	Enlarged Tonsils	258	205	38	25
	Adenoids	2	5	2	...
	Enlarged Tonsils and Adenoids	15	2	3	...
	Other Conditions	16	14	2	...

Enlarged Cervical Glands (non-tubercular).		30	41	5	5
Defective Speech		...	1	...	...
Teeth:—Dental Diseases		61	1	1	...
Heart and Circulation	Heart Disease:—				
	Organic	...	...	...	...
	Functional	12	40	1	12
	Anaemia	31	2	4	...
Lungs	Bronchitis	65	34	3	2
	Other non-tubercular Diseases	6	2	...	...
Tuberculosis	Pulmonary:—				
	Definite	...	...	...	...
	Suspected	3	4	...	...
	Non-Pulmonary:—				
	Glands	3	1	...	...
	Spine	...	...	...	...
	Hip	...	...	...	...
	Other Bones and Joints.	...	...	...	...
	Skin	...	...	...	...
	Other Forms	...	...	...	...
Nervous System	Epilepsy	...	...	...	...
	Chorea	...	...	...	...
	Other Conditions	...	...	...	...
Deformities	Rickets	11	...	2	...
	Spinal Curvature	...	...	...	...
	Other Forms	9	...	1	...
Other Defects and Diseases		12	2	5	...

TABLE III.—Return of all Exceptional Children in the Area.

			Boys	Girls	TOTAL
BLIND (including partially blind).	(i) Suitable for training in a School or Class for the totally blind.	Attending Certified School or Classes for the Blind	4	4	8
		Attending Public Elementary Schools	...	...	...
		At Other Institutions	...	...	...
		At no School or Institution	...	1	1
	(ii) Suitable for training in a School or Class for the partially blind.	Attending Certified School or Classes for the Blind	1	2	3
		Attending Public Elementary Schools	2	2	4
		At Other Institutions	...	...	...
		At no School or Institution	...	...	...
DEAF (including Deaf and Dumb and partially deaf).	(i) Suitable for training in a School or Class for the totally deaf and dumb.	Attending Certified School or Classes for the Deaf	7	3	10
		Attending Public Elementary Schools	...	...	...
		At Other Institutions	...	...	...
		At no School or Institution	...	...	...
	(ii) Suitable for training in a School or Class for the partially deaf.	Attending Certified School or Classes for the Deaf	...	...	...
		Attending Public Elementary Schools	...	1	1
		At Other Institutions	...	...	...
		At no School or Institution	...	...	...
MENTALLY DEFECTIVE.	Feeble-minded (cases not notifiable to the Local Control Authority).	Attending Certified Schools for Mentally Defective Children	60	47	107
		Attending Public Elementary Schools	26	25	51
		At Other Institutions	1	3	4
		At no School or Institution	34	24	58
	Notified to the Local Control Authority.	Feebleminded	...	1	1
		Imbeciles	20	21	41
		Idiots	10	5	15
EPILEPTICS.	Suffering from severe Epilepsy.	Attending Certified Special Schools for Epileptics	...	...	...
		In Institutions other than Certified Special Schools	1	...	1
		Attending Public Elementary Schools	...	...	...
		At no School or Institution	2	3	5

EPILEPTICS (cont.).	Suffering from Epilepsy which is not severe.	Attending Public Elementary Schools	6	2	8
		At no School or Institution	1	1	2
PHYSICALLY DEFECTIVE.	Infectious Pulmonary and Glandular Tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	...	...	...
		At Other Institutions	...	...	...
		At no School or Institution	...	...	...
	Non-infectious but active Pulmonary and Glandular Tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	...	...	...
		At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	3	2	5
		At Public Elementary Schools	9	7	16
		At Other Institutions	...	...	...
		At no School or Institution	...	...	...
	Delicate Children (e.g., pre or latent Tuberculosis, Malnutrition, Debility, Anæmia, etc.).	At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	125	108	233
		At Public Elementary Schools	40	23	63
		At Other Institutions	...	...	...
		At no School or Institution	6	1	7
	Active non-pulmonary Tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	1	2	3
		At Public Elementary Schools	8	7	15
		At Other Institutions	...	...	...
		At no School or Institution	2	2	4
	Crippled Children (other than those with active Tuberculous disease, e.g., children suffering from paralysis, etc., and including those with severe heart disease).	At Certified Hospital Schools	...	2	2
		At Certified Residential Cripple Schools	...	...	...
		At Certified Day Cripple Schools	...	...	...
		At Public Elementary Schools	76	68	144
		At Other Institutions	...	...	...
		At no School or Institution	13	15	28

Number of individual children found at Routine Medical Inspection to require treatment (excluding Uncleanliness and Dental Diseases).

Group	Number of Children		Percentage of Children found to require Treatment
	Inspected	Found to require Treatment	
(1)	(2)	(3)	(4)
Code Groups :			
Entrants	2485	283	11·4
Intermediates	1584	308	19·4
Leavers	1560	323	20·7
Total (Code Groups)	5629	914	16·2
Other Routine Inspections	...	...	...

TABLE IV.

Return of Defects Treated during the year ended 31st December, 1928.

TREATMENT TABLE.

GROUP I.—Minor Ailments (Excluding Uncleanliness, for which see Group V.).

Disease or Defect	Number of Defects treated, or under Treatment during the year.		
	Under the Authority's Scheme	Otherwise	Total
(1)	(2)	(3)	(4)
Skin—			
Ringworm, Scalp and Body	143	9	152
Scabies	8	2	10
Impetigo	628	3	631
Other Skin Disease	74	6	80
Minor Eye Defects—			
External and other, but excluding cases falling in Group II.	426	31	457
Minor Ear Defects	248	19	267
Miscellaneous, (e.g. Minor Injuries, Bruises, Sores, Chilblains, etc.)	2211	36	2247
Total	3738	106	3844

TABLE IV.—*Contd.*

GROUP II.—Defective Vision and Squint (Excluding Minor Eye Defects Treated as Minor Ailments—Group I.).

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to Refraction by Private Practitioner or at Hospital apart from the Authority's Scheme	Otherwise	Total
(1)	(2)	(3)	(4)	(5)
Errors of Refraction (including Squint) ...	828	13	17	858
Other Defect or Disease of the Eye (excluding those recorded in Group I.)	...	...	...	...
Total	828	13	17	858

Total number of children for whom spectacles were prescribed :—

(a) Under the Authority's Scheme	676
(b) Otherwise	27

Total number of children who obtained or received spectacles :—

(a) Under the Authority's Scheme	521
(b) Otherwise	27

The number of children who were provided with glasses by the Education Committee was 31.

TABLE IV.—*Contd.*

Group III.—Treatment of Defects of Nose and Throat.

Number of Defects.				
Received Operative Treatment.				
Under the Authority's Scheme, in Clinic or Hospital	By Private Practitioner or at Hospital, apart from the Authority's Scheme	Total	Received other forms of Treatment	Total Number Treated
(1)	(2)	(3)	(4)	(5)
422	7	429	123	552

TABLE IV.—*Contd.*

GROUP IV.—DENTAL DEFECTS.

(1) Number of Children who were :—

(a) Inspected by the Dentists :

	Aged :			
Routine Age Groups	5	—	Total	8896
	6	2044		
	7	3211		
	8	2051		
	9	1271		
	10	257		
	11	23		
	12	19		
	13	16		
	14	4		
	15	—		
	16	—		
Specials				1931
Grand Total				10827

	Routine	Special	Total
(b) Found to require treatment ...	3260	1931	5191
(c) Actually treated	2164	1931	4095
(d) Re-treated during the year as the result of periodical examination...	655	...	655

(2)	Half-days devoted to	Inspection	51	Total ... 882
		Treatment	831	
(3)	Attendances made by children for treatment			 6738
(4)	Fillings	Permanent Teeth ...	6986	Total ... 6986
		Temporary Teeth ...	—	
(5)	Extractions	Permanent Teeth ...	823	Total ... 2768
		Temporary Teeth ...	1945	
(6)	Administrations of general anæsthetics for extractions...			 591
(7)	Other operations ...	Permanent Teeth ...	1576	Total ... 1576
		Temporary Teeth ...	—	

GROUP V.—Uncleanliness and Verminous Conditions.

(1) Average number of visits per school made during the year by the School Nurses		3
(2) Total number of examinations of children in the schools by School Nurses		22331
(3) Number of individual children found unclean—	Few Nits	2999
	Moderate Nits ...	2367
	Severe Nits ...	319
	Vermin	12
	Total	5697
(4) Number of children cleansed under arrangements made by the Local Education Authority		10
(5) Number of cases in which legal proceedings were taken :—		
(a) Under the Education Act, 1921		—
(b) Under School Attendance Bye-laws		—